Quiz Date: 9th May 2020

Directions (1-5): In the following DI there are different no of medals won by different Countries in different year tournament.

	India	Australia	England	Sri Lanka
2000	75	100	100	25
2004	125	75	175	50
2008	125	75	125	125
2012	150	25	75	175

Q1. Average Medal won by India is how much more/less than the average medal won by Australia?
(a) 20
(b) 50
(c) 30
(d) 35
(e) 25.5

Q2. Total medal won by India in 2000,2004 and 2008 is approximately how much percent of total medal won by England in 2004 and 2008?
(a) 102
(b) 108
(c) 114
(d) 119
(e) 130

Q3. What is ratio of total medals won by Australia in 2000,2004 and 2008 and total Medals won by Sri Lanka in 2008 and 2012 ?
(a) 5:6
(b) 7:6
(c) 8:7
(d) 4:3
(e) 3:4

Q4. Total medal given in 2008 is how much percent more/less from the medal given in year 2000?
(a) 75 %
(b) 40 %

(c) 30 %
(d) 50 %
(e) 25 %

Q5. What is total medal given in all the 4 years?
(a) 1400
(b) 1425
(c) 1600
(d) 1525
(e) 1475

Directions (6-10): The given table shows the number of votes cast in a city in given years. Some data is missing. Study the following table and answer the following questions.
Some value are missing in the table, you are expected to calculate the missing values if it is required to answer the given questions as per the information provided in the question.

Year	Total number of votes	Percentage of valid votes	Respective ratio of valid votes of A and valid votes of B
2013	1000	40%	-
2014	2500	50%	-
2015	800	-	7 : 4
2016	-	75%	8 : 5
2017	-	-	5 : 3

Note :- Total votes = valid votes + invalid votes
Total valid votes = valid votes of A + valid votes of B

Q6. The total number of votes increased by 40% in 2018 with respect to 2015 and out of which only 20% votes are invalid. Find the no. of valid votes in 2018.
(a) 224
(b) 896
(c) 1024
(d) 908
(e) 696

Q7. If the average no. of valid votes in 2014 and 2016 are 1000. Find the total no. of votes cast in 2016.
(a) 1250
(b) 1750
(c) 1000
(d) 750
(e) 1500

Q8. What was the respective ratio of no. of valid votes of A to no. of valid votes of B in year 2014, if the no. of valid votes of B was 650 in the same year?
(a) 12 : 25
(b) 13 : 12
(c) 13 : 25
(d) 12 : 13
(e) 11 : 13

Q9. If 55% of total cast votes are valid in year 2015, find the difference between valid votes of A and B in the same year?
(a) 240
(b) 150
(c) 180
(d) 90
(e) 120

Q10. In 2016, the difference between no. of valid votes of A and B was 225. What was the total no. of votes cast in 2016?
(a) 1500
(b) 1300
(c) 1700
(d) 900
(e) 1100

Directions (11-15): The following table shows the total number of employees working in company TCS and ratio of men to women over six different years. Study the table and answers the questions that follow.

Years	Total number of employees	Men: Woman
2011	8,00,000	7: 3
2012	8,50,000	11: 6
2013	9,54,500	3: 2
2014	9,80,500	11: 9
2015	8,65,000	13: 12
2016	9,25,000	1: 1

Q11. Find the average no. of women employees in the year 2011 and 2015.

(a) 3,27,600
(b) 3,80,400
(c) 4,26,500
(d) 4,56,500
(e) 5,20,500

Q12. The women employees working in the company in the years 2012 and 2014 together are approximately what percent of total employees in the year 2011?
(a) 81 %
(b) 99%
(c) 93%
(d) 108%
(e) 76%

Q13. If 20% employees were rusticated in the year 2016, then find the no. of women employees who got rusticated in 2016 (It is given that the number of females in the rusticated employees is equal to no. of rusticated males)?
(a) 85,500
(b) 1,05,000
(c) 95,000
(d) 92,500
(e) None of these

Q14. What is the difference between no. of male employees in years 2012, 2013 and 2016 together and no. of female employees in the same years together?
(a) 4,40,900
(b) 5,50,000
(c) 6,55,000
(d) 7,65,000
(e) 5,24,000

Q15. In which year, the difference between man and woman employees is maximum
(a) 2011
(b) 2012
(c) 2014
(d) 2015

(e) 2016

Solutions

S1. Ans(b)
Sol.
Average medal won by india $=\frac{75+125+125+150}{4}=\frac{475}{4}$
=118.75
Average medal won by Australia = $\frac{(100+75+75+25)}{4}=\frac{275}{4}$
=68.75
∴ A.T.Q
118.75 – 68.75 = 50

S2.Ans (b)
Sol.
Total medals won by india in 2000, 2004 and 2008=75+125+125= 325
Total medals won by England in 2004 and 2008= 175 + 125 =300
∴ A.T.Q
$\frac{325}{300} \times 100 = 108.33 = 108$(approx.)

S3.Ans (a)
Sol.
Total medals won by Australia in 2000,2004 and 2008 = 100 + 75 + 75 = 250
Total medals won by Sri Lanka in 2008 and 2012 = 300
∴ A.T.Q
250:300
=5:6

S4. Ans (d)
Sol.
Total medals given in 2008 = 125+75+125+125 = 450
Total medal given in year 2000 = 75+ 100+100+25 = 300
∴ A.T.Q
$\frac{450-300}{300} \times 100 = \frac{150}{300} \times 100 = 50\ \%$

S5.Ans (c)
Sol.
Total medals given in 2000 = 75+100+100+25 = 300
Total medals given in 2004 = 125+75+175+50 =425
Total medals given in 2008 = 125+75+125+125 = 450
Total medal given in 2012 =150+25+75+175 =425
∴ A.T.Q
Total medal given in all the years = 300+ 425+ 450+ 425= 1600

S6. Ans (b)
Sol. Required no. $= 800 \times \frac{140}{100} \times \frac{80}{100} = 896$

S7. Ans (c)
Sol. Let total no. of votes cast in 2016 be x.
ATQ
$\frac{\frac{50}{100}\times 2500+\frac{75}{100}\times x}{2} = 1000$
$\frac{1250+\frac{3}{4}x}{2} = 1000$
$\frac{3}{4}x = 2000 - 1250$
$x = 1000$

S8. Ans (d)
Sol. Total no. of valid votes in year 2014 $= \frac{50}{100} \times 2500 = 1250$
No. of valid votes of A in 2014 $= 1250 - 650 = 600$
So, required ratio $= 600 : 650 = 12 : 13$

S9. Ans (e)
Sol. Total valid votes of year 2015 $= \frac{55}{100} \times 800 = 440$
Let valid votes of A and B are 7x and 4x respectively.
$7x + 4x = 440$
$11x = 440$
$x = 40$
So, required difference $= 7x - 4x = 3x = 3 \times 40 = 120$

S10. Ans (b)
Sol. Let no. of valid votes of A and B are 8x and 5x respectively.
So, $8x - 5x = 3x = 225$
So, total no. of valid votes $= 13x = 975$
Total no. of votes cast in 2016 $= 975 \times \frac{100}{75} = 1300$

S11. Ans.(a)
Sol.

Required average no. of women employees

$= \frac{1}{2} \times \left(\frac{3}{10} \times 8{,}00{,}000 + \frac{12}{25} \times 8{,}65{,}000\right)$

$= \frac{1}{2} \times (2{,}40{,}000 + 4{,}15{,}200)$

=3,27,600

S12. Ans.(c)

Sol.

Women working in company in years 2012 and 2014 together

$= \left(\frac{6}{17} \times 8{,}50{,}000 + \frac{9}{20} \times 9{,}80{,}500\right)$

$= 3{,}00{,}000 + 4{,}41{,}225$

= 7,41,225

$\therefore$ Required percentage $= \frac{741225}{800000} \times 100$

= 92.65% =93% approx

S13. Ans.(d)

Sol.

The no. of woman employees who were rusticated

$= \frac{20}{100} \times 9{,}25{,}000 \times \frac{1}{2}$

= 92,500

S14. Ans.(a)

Sol.

Required difference=$\left(\frac{11}{17} \times 8{,}50{,}000 + \frac{3}{5} \times 9{,}54{,}500 + \frac{1}{2} \times 9{,}25{,}000\right) - \left(\frac{6}{17} \times 8{,}50{,}000 + \frac{2}{5} \times 9{,}54{,}500 + \frac{1}{2} \times 9{,}25{,}000\right)$

= (5,50,000+ 5,72,700+ 4,62,500) – (3,00,000+3,81,800+ 4,62,500)

= 4,40,900

S15. Ans.(a)

Sol.

Difference in man and woman employees in year 2011= $\frac{(7-3)}{(7+3)} \times$ 8,00,000

= 3,20,000

In year 2012= $\frac{(11-6)}{(6+11)} \times$ 8,50,000

= 2,50,000

In year 2014 = $\frac{(11-9)}{(9+11)} \times$ 9,80,500 = 98,050

In rest years difference of ratio looks smaller than the above data calculated

$\therefore$ maximum difference is in year = 2011