Quiz Date: 16th June 2020

Directions (1-5): Table shown below shows population of five different cities. Some data is given in percent while some data is given in numbers. Study the table carefully and solve the following questions.

City	Male	Female	Transgender
X	45%	30%	2000
Y	50%	3000	35%
Z	8000	35%	15%
A	45%	3600	25%
B	38%	32%	4200

Note: Total population = Male + Female + Transgender

Q1. Population of city Z is what percent less than population of city Y.
(a) 30%
(b) 25%
(c) 20%
(d) 15%
(e) 17.5%

Q2. Ratio of literate male to Illiterate male of city A is 11 : 7. What is the difference between literate male and Illiterate male of city A.
(a) 900
(b) 1050
(c) 1400
(d) 800
(e) 1200

Q3. Female population in city Z is what percent less than sum of male and transgender population of city A.
(a) 25%
(b) $33\frac{1}{3}\%$
(c) 50%
(d) $66\frac{2}{3}\%$
(e) 75%

Q4. Male population of city B is how much more than female population of city X?
(a) 2900
(b) 2840

(c) 2760
(d) 2920
(e) 2980

Q5. Find the ratio of transgender population of city Z to the transgender population of city A.
(a) 4/5
(b) 5/4
(c) 3/5
(d) 5/3
(e) 2/5

Directions (6-10): Table given below shows car manufactured by five different companies in six different years. Study the data carefully and answer the following questions–

	2012	2013	2014	2015	2016	2017
Maruti	144	174	196	128	108	70
Honda	145	135	140	128	132	136
Hyundai	118	134	213	126	80	143
Toyota	198	185	121	120	150	126
Tesla	185	162	150	165	198	165

Q6. Find the ratio of cars manufactured by 'Honda' in 2014 and 2015 together to cars manufactured by 'Toyota' in 2013 and 2016 together?
(a) 9 : 10
(b) 3 : 4
(c) 4 : 5
(d) 14 : 15
(e) 7 : 8

Q7. Total cars manufactured by 'Maruti' in all six years together is what percent more/less than total cars manufactured by 'Tesla' in all six years together?
(a) 15%
(b) 20%

(c) 30%
(d) 10%
(e) 25%

Q8. Average number of cars manufactured in year 2014 by all five companies together is how much more than average number of cars manufactured in year 2013 by all five companies together.
(a) 2
(b) 4
(c) 6
(d) 8
(e) 10

Q9. In 2018, every car manufacturer increased its production by approx. 25%, then find total number of cars manufactured in 2018 by all five companies together.
(a) 720
(b) 800
(c) 840
(d) 880
(e) 960

Q10. Average number of cars manufactured by 'Hyundai' in 2012, 2015 and 2016 together is what percent of average number of cars manufactured by 'Toyota' in all six years together.
(a) 68%
(b) 64%
(c) 80%
(d) 76%
(e) 72%

Directions (11-15): The following table shows the no. of women from different cities of Bihar who raised their voice to ban on alcohol in Bihar. Also, the table shows percentage of women who are literate in them.
Study the table carefully to answer the following questions.

Cities	Total Women	Percentage of literate women
Patna	43,200	$66\frac{2}{3}\%$
Buxer	35,400	75%
Ara	36,600	$83\frac{1}{3}\%$
Gaya	45,400	$72\frac{1}{2}\%$
Nalanda	52,600	85%

Q11. What is the total no. of illiterate women from Patna, Ara and Gaya together who raised their voice to ban alcohol in Bihar?

(a) 36,985
(b) 32,985
(c) 34,985
(d) 35,289
(e) 35,685

Q12. The total no. of literate women from Buxer are what percent less than the total no. of literate women from Ara who raised their voice against alcohol in Bihar (approximately)?
(a) 17%
(b) 27%
(c) 13%
(d) 22%
(e) 9%

Q13. What is the average no. of illiterate women who raised their voice against alcohol in Bihar from all the five cities together?
(a) 7985
(b) 10945
(c) 8945
(d) 9945
(e) 8545

Q14. If $33\frac{1}{3}\%$ literate women from Buxer are of age group of (20-30) and 20% literate women of Gaya are age group of (40-50) then find the total no. of literate women from Buxer having age of (20-30) years and total no. of literate women from Gaya having age group of (40-50) years together.
(a) 14,533
(b) 15,433
(c) 13,544
(d) 12,433
(e) 11,533

Q15. What is the ratio of no. of illiterate women from Ara to the no. of illiterate women from Buxer?
(a) 122 : 177
(b) 5: 13

(c) 7: 23
(d)177 : 122
(e) 153: 452

Solutions

S1. Ans.(c)
Sol.

$$\text{Population of city Y} = \frac{3000}{0.15}$$
$$= 20{,}000$$
$$\text{Population city of Z} = \frac{8000}{0.5} = 16{,}000$$
$$\text{Required percentage} = \frac{20{,}000-16{,}000}{20{,}000} \times 100$$
$$= \frac{4000}{20{,}000} \times 100$$
$$= 20\%$$

S2. Ans.(e)
Sol.

$$\text{Required difference}$$
$$= \frac{(11-7)}{18} \times 0.45 \times \frac{3600}{0.3}$$
$$= 1200$$

S3. Ans.(b)
Sol.

$$\text{Female population is city Z} = \frac{8000}{0.5} \times 0.35$$
$$= 5600$$
$$\text{Male \& transgender population in city A} = \frac{3600}{0.3} \times [0.7]$$
$$= 8400$$
$$\text{Required percentage}$$
$$= \frac{8400-5600}{8400} \times 100$$
$$= \frac{2800}{84}\% = \frac{100}{3}\%$$
$$= 33\frac{1}{3}\%$$

S4. Ans.(d)
Sol.

Male population in city B $= \frac{4200}{0.3} \times 0.38$
$= 5320$
Female population in city X $= \frac{2000}{0.25} \times 0.3$
$= 2400$
Required difference = 5320 – 2400
= 2920

S5. Ans.(a)
Sol.

$$\text{Required ratio} = \frac{\frac{8000}{0.5} \times 0.15}{\frac{3600}{0.3} \times 0.25}$$

$$= \frac{2400}{3000} = \frac{4}{5}$$

S6. Ans.(c)
Sol.

$$\text{Required ratio} = \frac{140 + 128}{185 + 150} = \frac{268}{335} = \frac{4}{5}$$

S7. Ans.(b)
Sol. Total number of cars manufactured by 'Maruti' in all six years together = 144 + 174 + 196 + 128 + 108 + 70 = 820
Total number of cars manufactured by 'Tesla' in all six years together = 185 + 162 + 150 + 165 + 198 + 165 = 1025
Required%

$$= \frac{1025 - 820}{1025} \times 100 = \frac{205}{1025} \times 100 = 20\%$$

S8. Ans.(c)
Sol.
Average number of cars manufactured in 2014

$$= \frac{196 + 140 + 213 + 121 + 150}{5} = \frac{820}{5} = 164$$

Average number of car manufactured in 2013

$$= \frac{174+135+134+185+162}{5} = \frac{790}{5} = 158$$

Required difference = 164 – 158 = 6

S9. Ans.(b)
Sol. Total number of cars manufactured in 2017 = 70 + 136 + 143 + 126 + 165 = 640
Total number of cars manufactured in 2018 $= \frac{125}{100} \times 640 = 800$

S10. Ans.(e)
Sol.
Average number of cars manufactured by Hyundai in 2012, 2015 and 2016 together
$= \frac{118 + 126 + 80}{3}$
$= \frac{324}{3} = 108$
Average number of cars manufactured by Toyota in all six years together
$= \frac{198 + 185 + 121 + 120 + 150 + 126}{6}$
$= \frac{900}{6} = 150$
Required% $= \frac{108}{150} \times 100 = 72\%$

S11. Ans.(b)
Sol.
Total no. of illiterate women from Patna, Ara and Gaya together
$= \left(100 - \frac{200}{3}\right)\% \text{ of } 43,200 + \left(100 - \frac{250}{3}\right)\% \text{ of } 36,600 + \left(100 - \frac{145}{2}\right)\% \text{ of } 45,400$
$= \frac{1}{3} \times 43,200 + \frac{1}{6} \times 36,600 + \frac{11}{40} \times 45,400 = 32,985$

S12. Ans.(c)
Sol. Required percentage $= \frac{\frac{250}{300} \times 36,600 - \frac{75}{100} \times 35,400}{\frac{250}{300} \times 36,600} \times 100$
$= \frac{30,500 - 26,550}{30,500} \times 100 \cong 13\%$

S13. Ans.(d)
Sol. Required average $= \frac{1}{5} \times \left(\frac{1}{3} \times 43,200 + \frac{25}{100} \times 35,400 + \frac{1}{6} \times 36,600 + \frac{55}{200} \times 45,400 + \frac{15}{100} \times 52,600\right)$
$= \frac{1}{5} \times 49,725 = 9,945$

S14. Ans.(b)
Sol.
Required answer
$= \frac{1}{3} \times \frac{75}{100} \times 35,400 + \frac{1}{5} \times \frac{145}{200} \times 45,400$
$= 8850 + 6,583 = 15,433$

S15. Ans.(a)
Sol.
No. of illiterate women from Ara
$= \frac{1}{6} \times 36,600 = 6100$
No. of illiterate women from Buxer
$= \frac{25}{100} \times 35,400 = 8850$
$\therefore$ Required ratio $= \frac{6100}{8850} = \frac{122}{177}$