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Solutions

S1. Ans.(b)

Sol. No. of students from Bihar having 10th qualification

= 95,500 – (12,500 + 16,400 + 24,000 + 32,100) = 10,500

∴ Required percentage

$$= \frac{10,500}{24,600 + 14,400} \times 100$$

$$= \frac{10500}{390} = \frac{350}{13} = 26\frac{12}{13}\%$$

S2. Ans.(d)

Sol. Required average number of students

$$= \frac{1}{6} \times (32,100 + 72,500 + 24,600 + 16,500 + 14,400 + 12,400)$$

$$= \frac{1}{6} \times 1,72,500 = 28,750$$

S3. Ans.(e)

Sol. 24000 + 54600 + 16400 + 12000 + 12400 + 45% of 24000 = 130200

S4. Ans.(b)

Sol. No. of students from MP and Assam together having (10th + ITI) qualification

$$= 10000 + \frac{5}{4} \times 10,000 = 22,500$$

Total students from all the six states together having (10th + ITI) qualification

= 16,400 + 42,000 + 12,500 + 10,500 + 9,600 + 10,000 = 1,01,000

∴ Required percentage

$$= \frac{22,500}{1,01,000} \times 100 = 22\frac{28}{101}\%$$

S5. Ans.(a)

Sol. Let no. of students from Gujrat and Jharkand having 12th qualification is 8x and 7x respectively.

$$\therefore 8x + 7x + \frac{200}{100} \times (8x + 7x) + 12,500 + 10,000 + 9,200 = 85,700$$

⇒ x = 1,200

∴ Required answer = 1200 × 30 = 36,000

S6. Ans.(d)

Sol. Expenditure of A in 2011 $= \frac{510}{1.2} = 425$ lakh

∴ Required percentage $= \frac{490 - 425}{490} \times 100 \approx 13\%$ less

S7. Ans.(a)

Sol. Required percentage profit $= \frac{590 - 480}{480} \times 100 \approx 23\%$

S8. Ans.(a)

Sol. Income of A in 2013 $= \frac{16 \times 370}{100} + 370 = 429.2$ lakh

Income of B in 2013 $= \frac{17 \times 380}{100} + 380 = 444.6$ lakh

$\therefore$ Average income $= \frac{873.8}{2} =$ Rs. 436.9 lakh

S9. Ans.(d)

Sol. Required percentage

$$= \frac{515 - 30}{550} \times 100 \approx 86\%$$

S10. Ans.(b)

Sol. Required percentage

$= \frac{550 - 90}{90} \times 100 \approx 511\%$

S11. Ans.(c)

Sol. Selling price earned from Delhi = 30,000 × 150 × $\frac{140}{100}$ = 63,00,000

Selling price earned from Gujrat

= 15,000 × 150 × $\frac{120}{100}$ = 27,00,000

Selling price earned from Rajasthan

= 5,000 × 150 × $\frac{120}{100}$ = 9,00,000

$\therefore$ Total selling price earned = 63,00,000 + 27,00,000 + 9,00,000 = 99,00,000

S12. Ans.(b)

Sol. Total profit earned

$$= 25{,}000 \times 120 \times \frac{40}{100} + 20{,}000 \times 120 \times \frac{30}{100} + 15{,}000 \times 120 \times \frac{20}{100}$$

= Rs. 22,80,000

S13. Ans.(d)

Sol. Total Quantitative Aptitude books sold in UP, Rajasthan and Haryana together

= 40,000 + 5,000 + 10,000 = 55,000

Total English books sold in these states together

= 30,000 + 20,000 + 20,000 = 70,000

$\therefore$ Required percentage = $\frac{55{,}000}{70{,}000} \times 100 = 78\frac{4}{7}\%$

S14. Ans.(b)

Sol. Total selling price of all the three books in Rajasthan

$$= 5{,}000 \times 150 \times \frac{120}{100} + 20{,}000 \times 120 \times \frac{125}{100} + 20{,}000 \times 100 \times \frac{110}{100} = 61{,}00{,}000$$

Total selling price of all the three books in Haryana

$$= 10{,}000 \times 150 \times \frac{130}{100} + 15{,}000 \times 120 \times \frac{120}{100} + 20{,}000 \times 100 \times \frac{120}{100} = 65{,}10{,}000$$

∴ Required percentage

$$= \frac{65{,}10{,}000 - 61{,}00{,}000}{65{,}10{,}000} \times 100$$

≃ 6% less

S15. Ans.(a)

Sol. Required average no. of Reasoning books

$= \frac{1}{5} \times (20 + 25 + 20 + 20 + 15) \times 1000 = 20{,}000$

S16. Ans.(d)

Sol. Required percentage increase

$$= \frac{9-8}{8} \times 100 = \frac{100}{8} = 12.5\%$$

S17. Ans.(a)

Sol. Number of students enrolled in all the three district in the year 2014

= (8 + 6 + 7) = 21 thousands

Number of students enrolled in District-Q over all the years together

= (5 + 4 + 7 + 6 + 4 + 7) = 33 thousands

∴ Required difference = (33 – 21) = 12,000

S18. Ans.(b)

Sol. Average number of students enrolled in District-P over all the years together

$$= \frac{1}{6} \times (3 + 5 + 6 + 8 + 7 + 5) = \frac{1}{6} \times 34$$

≃ 5.666 thousands

≃ 5666 (approximately)

S19. Ans.(c)

Sol. The highest number of students may be in year 2013 or 2014 from the graph.

∴ Students enrolled in 2013

= (6 + 7 + 9) = 22 thousands

and students enrolled in 2014 = (8 + 6 + 7) = 21 thousands

∴ second highest enrolled students are in 2014

S20. Ans.(a)

Sol. Total number of students enrolled in the year 2016 from district-P and Q

= (5 + 7) = 12 thousands

Number of students enrolled in District-P in 2014 = 8 thousands

Required percentage

$= \frac{12}{8} \times 100 = \frac{3}{2} \times 100 = 150\%$

S21. Ans.(b)

Sol. Average profit earned by three companies in the year 2008

$= \frac{1}{3} \times (350 + 400 + 450) = \frac{1}{3} \times 1200 = 400$

S22. Ans.(e)

Sol. From line graph, it is clear that in the year 2007, the difference is minimum.

S23. Ans.(d)

Sol. From graph, the highest total profit is earned in 2009 and it is

= 400 + 425 + 475 = 1300

S24. Ans.(a)

Sol. % increase in profit earned by A from 2006 to 2007

$= \frac{375 - 275}{275} \times 100$

$= \frac{100}{275} \times 100$

$= \frac{400}{11}$

$= 36\frac{4}{11}\%$

S25. Ans.(c)

Sol. Required difference = (Profit earned by A in 2004) ~ (Profit earned by C in 2009)

= 400 – 300 = 100 crores

S26. Ans.(c)

Sol. Let total no. of students who applied for the post of JE and AE from UP are 81x and 61x respectively.

∴ 81x + 61x = 1,15,700 – (40,000 + 10,500 + 8,400)

= 56,800 ⇒ x = 400

∴ Required answer = 61 × 400

= 24,400

S27. Ans.(b)

Sol. Total candidates from Delhi who applied for the post of AE

= 5 × 16,880 – (20,000 + 36,000 + 7,200 + 4,800) = 16,400

∴ Required percentage = $\frac{16,400}{7,200} \times 100 = 227\frac{7}{9}\%$

S28. Ans.(d)

Sol. Required answer = $\frac{150}{100} \times \frac{60}{100} \times 16,400$

= 14,760

S29. Ans.(a)

Sol. Required total no. of candidates

= 12,500 + 8,400 + $\frac{80}{100}$ × 20,000 + 5,400 = 42,300

S30. Ans.(c)

Sol. $\left(100 - \frac{225}{14}\right)\% = \frac{1175}{1400} = \frac{47}{56}\%$

∴ $\frac{47}{56} \rightarrow$ (8400 + 4800 + 2400 + 3200)

⇒ Total no. of candidates from all states together

= $\frac{56}{47} \times 18,800 = 22,400$

∴ Required answer = $\frac{225}{1400} \times 22,400 = 3,600$

S31. Ans.(b)

Sol. Required total no. of males

$$= \frac{90}{100} \times 20 + \frac{75}{100} \times 45 + \frac{80}{100} \times 36 + \frac{85}{100} \times 28 + \frac{70}{100} \times 15$$

= 114.85 thousand

S32. Ans.(c)

Sol. Required percentage

$$= \frac{30 \times 36 - 18 \times 18}{18 \times 18} \times 100 = 233\frac{1}{3}\%$$

S33. Ans.(a)

Sol. No. of males from Bihar

$$= \left(\frac{80}{100} \times 36 + \frac{70}{100} \times 4 + \frac{72}{100} \times 18\right) = 42.04 \text{ thousand}$$

No. of males from Gujrat

$$= \left(\frac{70}{100} \times 15 + \frac{82}{100} \times 18 + \frac{76}{100} \times 12\right) = 34.38 \text{ thousand}$$

∴ Required difference = 42.04 – 34.38 = 7.66 thousands

S34. Ans.(d)

Sol. Total no. of females from UP and Assam together for the post commando

$\frac{36}{100} \times 30 + \frac{25}{100} \times 15$

= 14.55 thousand

Total no. of females from Bihar and Jharkhand together for the post of commando

$= \frac{30}{100} \times 4 + \frac{20}{100} \times 16$

= 4.4 thousand

∴ Required percentage $= \frac{14.55}{4.4} \times 100$

≃ 330%

S35. Ans.(b)

Sol. Required difference

= (15 + 30 + 4 + 16 + 18) – (10 + 20 + 18 + 20 + 12)

= 3 thousand

S36. Ans.(d)

Sol. Required difference

$= \frac{43}{100} \times 360 - \frac{41}{100} \times 360 \ = 7.2°$

S37. Ans.(d)

Sol. Vacancies in SBI and PNB together in 2010 $= \frac{18}{100} \times 32000 = 5760$

Vacancies in SBI and PNB together in 2015$= \frac{16}{100} \times 60000 = 9600$

∴ Required % $= \frac{9600-5760}{5760} \times 100 = 66\frac{2}{3}\%$

S38. Ans.(a)

Sol. Required Ratio

$= \frac{(10 + 16 + 5) \times 60}{(8 + 12 + 5) \times 32}$

$= \frac{31 \times 60}{25 \times 32} = \ 93 : \ 40$

S39. Ans.(c)

Sol. Required %

$= \frac{\frac{12 + 4 + 14}{100} \times 60000}{\frac{20 + 16 + 5}{100} \times 32000}$

$= \frac{30 \times 60}{41 \times 32} \times 100 = 137.2\%$

S40. Ans.(d)

Sol. Vacancies in UCO and BOB together in 2010 = $\frac{16+20}{100} \times 32000 = 11520$

Vacancies in UCO and BOB together in 2015 = $\frac{15}{100} \times 60{,}000 = 9000$

∴ Required % = $\frac{11520-9000}{9000} \times 100 = 28\%$

S41. Ans.(d)

Sol. Income of Honor = I_1 in 2013

$\therefore\ 35 = \frac{I_1 - 12}{12} \times 100$

I_1 = Rs. 16.2 L

In 2014, Let Income = I_2

$\therefore\ 50 = \frac{I_2 - 14.5}{14.5} \times 100$

$I_2 = 21.75$ L

∴ total income = 21.75 L + 16.2 L = 37.95 L

S42. Ans.(e)

Sol. Let the respective expenditures of both Xiomi and Honor be Rs. $3x$ and Rs. $4x$ lakhs.

$\therefore\ I_{xiomi}$ in 2016 $\Rightarrow 30 = \frac{I_1 - 3x}{3x} \times 100$

or, $I_1 = 3.9x$

Again, I_{Honor} in 2016 $\Rightarrow 40 = \frac{I_2 - 4x}{4x} \times 100$

$\Rightarrow I_2 = 5.6x$

Desired ratio $\Rightarrow I_{xiomi} : I_{Honor} = 3.9x : 5.6x$

= 39 : 56

S43. Ans.(d)

Sol. It can't be determined as data given are inadequate.

S44. Ans.(a)

Sol. Let expenditure of both Xiomi and Honor in 2017 be Rs. x lakhs & their respective incomes be Rs. I_1 & I_2 lakhs.

∴ Profit% for Xiomi = 40

& Profit% for Honor = 45

$\therefore 40 = \frac{I_1 - x}{x} \times 100$ ... (i)

& $45 = \frac{I_2 - x}{x} \times 100$ ... (ii)

From (i) and (ii)

x = Rs. 2L

∴ Total expenditure = 2 × 2 = Rs. 4 lakh

S45. Ans.(c)

Sol. Let the income be Rs. $2x$ and Rs. $3x$ lakhs respectively in 2014 and 2015 for Honor.

∴ In 2014,

$$50 = \frac{2x - E_1}{E_1} \times 100$$

$$\Rightarrow 1.5\ E_1 = 2x$$

$$\Rightarrow E_1 = \frac{2x}{1.5} \text{ Lakh}$$

In 2015,

$$45 = \frac{3x - E_2}{E_2} \times 100$$

$$\Rightarrow E_2 = \frac{3x}{1.45}$$

$$\therefore \frac{2x}{1.5} : \frac{3x}{1.45} = 29 : 45.$$

S46. Ans.(c)

Sol. No. of gold medals won by India

$$= \frac{13}{33} \times \frac{1320}{11300} \times 565 = 26$$

S47. Ans.(d)

Sol. Answer cannot be determined because there is no information about bronze medals.

S48. Ans.(a)

Sol. Average no. of medals who by Australia, England & India together

$$= \frac{1}{3} \times \left(\frac{3960}{11300} + \frac{2720}{11300} + \frac{1320}{11300}\right) \times 565 = \frac{400}{3}$$

S49. Ans.(c)

Sol. Let no. of silver medals won by South Africa = x

$$\therefore\ x + 2 \times \frac{1300}{1100} x = \frac{740}{11300} \times 565$$

$$\Rightarrow \frac{37x}{11} = 37 \Rightarrow x = 11$$

∴ No. of gold medals won by South Africa

$$= \frac{1300}{1100} \times 11 = 13$$

S50. Ans.(c)

Sol. No. of gold medals won by England

$$= \frac{1125}{3400} \times \frac{2720}{11300} \times 565 = 45$$

∴ No. of gold medals won by Australia $= \frac{1600}{900} \times 45 = 80$

S51. Ans.(a)

Sol. Total Banking booklets sold online in Delhi and Patna together

$= \frac{70}{100} \times 45 + \frac{80}{100} \times 50$

= 71.5 thousand

Total SSC booklets sold online in Delhi and Patna together

$= \frac{60}{100} \times 30 + \frac{75}{100} \times 60$

= 63 thousand

∴ Required percentage = $\frac{71.5-63}{63} \times 100$

= $13\frac{31}{63}$% more

S52. Ans.(c)

Sol. Total selling price obtained

$=30\times150\times\frac{140}{100} + 40 \times 120 \times \frac{125}{100}$

=6300 + 6000

=123 lacs

S53. Ans.(b)

Sol. Sol. Average of online selling of Banking booklets in Delhi, Patna and Jaipur together

$=\frac{1}{3} \times \left(\frac{70}{100} \times 45 + \frac{80}{100} \times 50 + \frac{55}{100} \times 50\right)$

= 33 thousand

Average of online selling of SSC booklets in Delhi, Patna & Jaipur together

$= \frac{1}{3} \times \left(\frac{60}{100} \times 30 + \frac{75}{100} \times 60 + \frac{65}{100} \times 40\right)$

$= \frac{89}{3}$ thousand

∴ Required percentage = $\frac{33\times3}{89} \times 100 = 111\frac{21}{89}$%

S54. Ans.(d)

Sol. Total no. of banking booklets sold offline in all the five cities

$= \frac{30}{100} \times 45 + \frac{40}{100} \times 30 + \frac{20}{100} \times 50 + \frac{35}{100} \times 55 + 45 \times \frac{50}{100}$

= 77.25 thousand

Total no. of SSC booklets sold offline in all the five cities

$= \frac{40}{100} \times 30 + \frac{50}{100} \times 40 + \frac{25}{100} \times 60 + \frac{30}{100} \times 65 + \frac{35}{100} \times 40$

= 80.5 thousand

∴ Required difference = 80.5 – 77.25 = 3.25 thousand

S55. Ans.(b)

Sol. Total no. of banking booklets sold in Hissar and Varanasi together = 30 + 55 = 85 thousand

Total no. of SSC booklets sold in Patna and Jaipur together

= 60 + 40 = 100 thousand

∴ Required percentage = $\frac{100-85}{100} \times 100$

= 15% less

S56. Ans.(c)

Sol. Required average = $\frac{1}{5} \times (32 + 48 + 60 + 40 + 54) \times 1000$

= 46,800

S57. Ans.(b)

Sol. S.P. of one class mate pencil

S.P. = $\frac{54000 \times 8 \times 175}{54000 \times 100}$

= Rs. 14

S58. Ans.(d)

Sol. The production of HB pencils in the years 2010, 2012 and 2014 together

= (32 + 60 + 54) thousand

= 146 thousand

Production of class mate pencils in the years 2011, 2013 and 2014 together

= (54 + 56 + 72) thousand

= 182 thousand

∴ Required percentage = $\frac{146}{182} \times 100$

= 80.21%

S59. Ans.(a)

Sol. Total non-defective pencils = $\frac{90}{100} \times 248000$

= 2,23,200

∴ Production Cost of one pencil = $12 \times \frac{100}{120}$ = Rs. 10

∴ Total selling price = 2,23,200 × 12

= 26,78,400

Total production cost price = 2,48,000 × 10

= 24,80,000

∴ Overall profit/loss = 26,78,400 – 24,80,000

= Rs. 1,98,400

S60. Ans.(b)

Sol. Required difference

$= (36 + 54 + 30 + 56 + 72) - (32 + 48 + 60 + 40 + 54)$

$= (248 - 234)$ thousand

= 14,000

Solutions (61-65): Total persons who were awarded = $\frac{103}{20.6} \times 360$ = 1800

States	No. of persons who were awarded
UP	542
MP	228
Maharashtra	453
Kerala	103
West Bengal	123
Haryana	351

S61. Ans. (b)

Sol. Required answer = 542 + 453 + 123 = 1118

S62. Ans. (c)

Sol. Required parentage

$= \frac{454 - 453}{453} \times 100$

$= \frac{100}{453}\%$ more

S63. Ans. (d)

Sol. Total Females of MP who were awarded

$= \frac{1}{3} \times 228 = 76$

Total females of west Bengal who were awarded

$= \frac{2}{3} \times 123 = 82$

∴ Required answer

$= \frac{82 - 76}{82} \times 100 \simeq 7.3\%$ less

S64. Ans. (a)

Sol. Required average

$= \frac{1}{3} \times (542 + 228 + 103) = 291$

S65. Ans. (b)

Sol. Required difference = $|(542 + 103 + 123) - (228 + 453 + 351)|$ = 264

S66. Ans.(b)

Sol. Required average

$= \frac{1}{5} \times (36 \times 500 + 42 \times 750 + 24 \times 350 + 22 \times 400 + 26 \times 600)$

$= \frac{1}{5} \times 82{,}300$

= 16,460

S67. Ans.(a)

Sol. Total no. of foreigner visitors from UK and Russia of age group (20–25) years

$= \frac{24}{100} \times 50{,}000 + \frac{20}{100} \times 35000$

= 19,000

Total no. of foreigner visitors from China and Japan of age group (20–25) years

$= \frac{30}{100} \times 75{,}000 + \frac{28}{100} \times 40{,}000$

= 33,700

Required percentage

$= \frac{33{,}700 - 19{,}000}{33{,}700} \times 100$

$\simeq 44\%$

S68. Ans.(d)

Sol. Required answer

= (40 × 500 + 28 × 750 + 56 × 350 + 50 × 400 + 20 × 600)

= 92,600

S69. Ans.(c)

Sol. Required ratio

$= \frac{42 \times 750 + 22 \times 400}{24 \times 350 + 26 \times 600}$

$= \frac{40{,}300}{24{,}000}$

$= \frac{403}{240}$

S70. Ans.(b)

Sol. Required answer

$= \frac{80}{100} \times (50{,}000 + 75{,}000 + 35{,}000 + 40{,}000 + 60{,}000)$

= 2,08,000

S71. Ans.(b)

Sol. Total sale of Mahindra cars in West Bengal

$= \frac{58}{100} \times 20 = 11.6$ thousands $= 11600$

Total sale of Mahindra car in Goa $= 58 \times \frac{9}{100} = 5220$

Required difference $= 11600 - 5220 = 6380$

S72. Ans.(e)

Sol. Sales of Mahindra cars in Punjab $= \frac{58}{100} \times 14$

$= 8.12$ thousands $= 8120$

Increase in volume $= 15000 - 8120 = 6880$

Percentage increase $= \frac{6880}{58000} \times 100 \approx 12\%$

S73. Ans.(c)

Sol. Total sale of Mahindra in 2017 $= \frac{112}{100} \times 58{,}000$

$= \frac{56 \times 29}{25} \times 1000$

$= 64960$

New total sale in Maharashtra $= \frac{134}{100} \times \frac{10}{100} \times 58000$

$= 7772$

New total sale in M.P. $= \frac{122}{100} \times \frac{22}{100} \times 58000$

≈ 15567

Total new sale in these states $= 23339$

Previous overall sale in all state except M.P. and Maharashtra

$= \frac{68}{100} \times 58{,}000$

$= 39440$

Required increase in sale in other states

$= (64960 - 23339) - 39440 \approx 2180$

S74. Ans.(d)

Sol. Required % $= \frac{101}{58} \times 100$

$\approx 175\%$

S75. Ans.(a)

Sol. Net total sale $= \frac{120}{100} \times 199000 = 238800$

New sale of Mahindra in West Bengal $= \frac{110}{100} \times \frac{20}{100} \times 58000 = 12760$

New total sale of Mahindra $= \frac{12760}{20} \times 100 = 63800$

Required total sale $= 238800 - 63800 = 1{,}75{,}000$

S76. Ans.(c)

Sol. Let no. of person who injured in Maharashtra in 2004 was x

∴ No. of persons who injured in same state in 2008 = $\frac{100}{250} \times x = \frac{2x}{5}$

∴ $x + \frac{2x}{5}$ = 88,000 – (20,000 + 18,000 + 15,000) = 35,000

$\Rightarrow x = 25{,}000$

$\therefore \frac{2x}{5} = \frac{2}{5} \times 25000 = 10{,}000$

∴ Required percentage = $\frac{20000}{10000} \times 100 = 200\%$

S77. Ans.(b)

Sol. Total persons injured in earthquake from Bihar and Maharashtra together in 2005

= 25000 + 20000 = 45,000

Total person injured in earthquake from Gujarat and Bihar together in 2006

= 40,000 + 20,000 = 60,000

Required percentage = $\frac{60000 - 45000}{60000} \times 100$ = 25% less

S78. Ans.(a)

Sol. No. of persons in Assam who injured in earthquake in 2005 = $8000 \times \frac{125}{100}$ = 10,000

∴ persons injured in Gujarat in 2005 = 32,000 + 10,000 = 42,000

∴ Required answer = 42,000 + 25,000 + 20,000 + 8,000 + 10,000 = 1,05,000

S79. Ans.(d)

Sol. Required answer = $\frac{68}{100} \times 40{,}000 + \frac{76}{100} \times 20{,}000 + \frac{82}{100} \times 18{,}000 = 57{,}160$

S80. Ans.(b)

Sol. Let total person injured in earthquake in Bihar and Maharashtra is $5x$ and $4x$ respectively.

∴ $9x$ = 63,000 – (30,000 + 2,000 + 4,000) $\Rightarrow 9x = 27{,}000$

Required percentage = $\frac{27{,}000}{63{,}000} \times 100 = \frac{300}{7}\% = 42\frac{6}{7}\%$

S81. Ans.(b)

Sol. Total number of professors = $\frac{1}{9} \times \frac{9}{25} \times 375 = 15$

S82. Ans.(c)

Sol. Number of male students in Mechanical branch from college A = $\frac{13}{25} \times 500 = 260$

Required percentage = $\frac{300-260}{300} \times 100$

$= \frac{40}{3}\% = 13\frac{1}{3}\%$

S83. Ans.(a)

Sol. 20% students from civil branch in college E = $\frac{20}{100} \times 450 = 90$

Total students of civil branch in college C = 250 + 90 = 340

Required ratio = $\frac{340}{1110} = \frac{34}{111}$

S84. Ans.(e)

Sol. Total students in Electrical branch in all college = 350 + 375 + 375 + 450 + 325 = 1875

Total students in civil branch from all colleges = 275 + 300 + 250 + 500 + 450 = 1775

Required percentage = $\frac{375-355}{355} \times 100 = 5.6\% \sim 6\%$ more

S85. Ans.(a)

Sol. Total students in college D and E together in 2017 who are enrolled now are

$= 1300 \times \frac{80}{100} + 1200 \times \frac{75}{100} + 400 = 2340$

S86. Ans.(c)

Sol. Students placed in at most 2 companies = 40% = 320

∴ Total number of students in KITM = $\frac{320}{40} \times 100 = 800$

Students placed in at least 5 companies in HCTM = 320 + 136 = 456 which is equal to 38%

∴ Total students in HCTM = $\frac{456}{38} \times 100 = 1200$

∴ Required ratio = $\frac{800}{1200} = 2 : 3$

S87. Ans.(d)

Sol. Students placed in at least 4 companies = $\frac{60}{100} \times 850 = 510$

Students placed in at least 3 companies = $\frac{72}{100} \times 850 = 612$

∴ Required difference = 102

S88. Ans.(a)

Sol. Students placed in at least 4 companies in

KITM = 38%

GITM = 41%

MMU = 58%

LPU = 60%

HCTM = 53%

∴ Required answer is LPU

S89. Ans.(c)

Sol. Students placed in 5 companies in HCTM = $\frac{135}{15} \times 24 = 216$

∴ Total students in KITM = $\frac{216}{8} \times 100 = 2700$

S90. Ans.(a)

Sol. Required average $= \frac{1}{2}(28 + 28) \times \frac{1600}{100} = 448$

S91. Ans.(b)

Sol. Required percentage

$$= \frac{|27 \times 360 - 28 \times 240|}{27 \times 360} \times 100$$

$$= \frac{3000}{27 \times 360} \times 100 = \frac{2500}{81}$$

$\simeq 31\%$ less

S92. Ans.(e)

Sol. Required difference = (27 + 14 + 8) % of 360 - (31 + 16 + 6) % of 240

= 176.4 - 127.2 = 49.2 lacs

S93. Ans.(a)

Sol. Total no. of Adidas sunglasses sold in Germany and Japan together

$= \frac{19}{100} \times 360$

= 68.4 lacs

And that of Reebok

$= \frac{19}{100} \times 240$

= 45.6 lacs

$\therefore$ Required percentage $= \frac{68.4}{45.6} \times 100 = 150\%$

S94. Ans.(c)

Sol. Let selling price per item of Reebok and Adidas in India is 5x and 3x respectively.

Since, here we know only profit of Reebok sun glasses and we have no information about profit of Adidas sun glasses.

So, answer can't be found.

S95. Ans.(b)

Sol. Required average

$$= \frac{1}{4} \times \frac{(27 + 14 + 8 + 7) \times 360}{100} \text{ lacs} = 50.4 \text{ lacs}$$

S96. Ans.(b)

Sol. Required total number of promoted employees

$$= \left(\frac{14}{100} \times 2000 \times \frac{25}{100} + \frac{35}{100} \times \frac{22}{100} \times 2000\right)$$

$= 224$

S97. Ans.(c)

Sol. Required difference

$$= \left(\frac{44}{100} \times 2000 \times \frac{50}{100} + \frac{22}{100} \times 2000 \times \frac{35}{100}\right) - \left(\frac{14}{100} \times 2000 \times \frac{75}{100} + \frac{20}{100} \times 2000 \times \frac{45}{100}\right)$$

$$= 594 - 390 = 204$$

S98. Ans.(a)

Sol. Required ratio

$$= \frac{\left(\frac{22}{100} \times \frac{35}{100} + \frac{44}{100} \times \frac{50}{100}\right) \times 2000}{\frac{14}{100} \times 2000}$$

$$= \frac{29.7}{14} = \frac{297}{140}$$

S99. Ans.(d)

Sol. Average number of un-promoted employees from all the four companies

$$= \frac{1}{4} \times \left(\frac{44}{100} \times \frac{50}{100} + \frac{22}{100} \times \frac{65}{100} + \frac{14}{100} \times \frac{75}{100} + \frac{20}{100} \times \frac{45}{100}\right) \times 2000$$

$$= \frac{1}{4} \times \frac{(2{,}200 + 1{,}430 + 1{,}050 + 900) \times 2}{10} = 279$$

S100. Ans.(e)

Sol. Number of promoted employees in Indigo and Whirlpool together

$$= \left(\frac{20}{100} \times \frac{55}{100} + \frac{14}{100} \times \frac{25}{100}\right) \times 2000 = 290$$

Total employees in Ambuja and TATA together

$$= \left(\frac{22}{100} + \frac{44}{100}\right) \times 2000 = 1{,}320$$

∴ Required percentage

$$= \frac{290}{1320} \times 100 = 21.969 \simeq 22\% \text{ (approx)}$$