SOLUTIONS

1. (d) Required number of students

$= \left[\left(\frac{80}{100}\times 120\right)+\left(\frac{78}{100}\times 135\right)\right]\times 1000$

$\Rightarrow (96 + 105.3) \times 1000$

$\Rightarrow 201300$

2. (d) Failed candidates in city D $= \frac{6}{10} \times 2.35 = 1.41$ lakhs

3. (c) Children in P and Q together:-

$= \frac{20}{100}\times 10{,}000 + \frac{30}{100}\times 20{,}000$

$= 2000 + 6000 = 8000$

4. (d) Total students in 2010 = 200
Students with 2nd division = 60

$\therefore$ Required% $= \frac{60}{200}\times 100 = 30\%$

5. (d) Total Expenditure =
5425 + 5250 + 6125 + 7525 + 6475 + 4200
= 35000
Expenditure on education = 5425

Required angle $= \frac{360^\circ}{35000} \times 5425$

$\frac{90\times 4\times 25\times 217}{35000} = \frac{9\times 217}{35}$

$= \frac{9\times 31}{5}\frac{\times 2}{\times 2}$

$= \frac{558}{10} = 55.8^\circ$

6. (b) Maths $\rightarrow$ 100% $\rightarrow 360^\circ$

$20\% \rightarrow \frac{360}{100} \times 20\%$

Science $\rightarrow$100 $\rightarrow 360^\circ$

$30\% \rightarrow \frac{360}{100} \times 30\%$

Now, required ratio $= \frac{360}{100} \times 20\% : \frac{360}{100} \times 30\%$

$= \frac{20}{30} = 2 : 3$

7. (b) In 2003 $= \frac{6.5-5.2}{5.2}\times 100 = 25\%$

In 2004 $= \frac{7.8-6.5}{6.5}\times 100 = 20\%$

In 2005 $= \frac{9.9-7.8}{9.8}\times 100 \approx 27\%$

In 2006 $= \frac{10.8-9.9}{9.9} \times 100 = 9.09\%$

In 2008 $= \frac{11.4-9.5}{9.5} \times 100 = 20\%$

$\therefore$ Max increase in 2005

8. (b) $\frac{\text{A during March}}{\text{A during April}} = \frac{\frac{3}{5}\times 20}{\frac{8}{15}\times 25}$

$= \frac{12\times 3}{40} = \frac{9}{10} \Rightarrow 9 : 10$

9. (b) Required% $= \frac{8200-8000}{8000}\times 100$

$= \frac{20000}{8000} = \frac{20}{8} = \frac{5}{2} = 2.5\%$

10. (a) Products sold by A on Thursday = 3000 – (2300)
= 700
Products sold by B on Tuesday = 3500 – (3000)
= 500
Required sale = 700 – 500 = 200 less

11. (d) ATQ,
6 + 62 = 68% $\rightarrow$ 850

total expenditure = 100% $\rightarrow \frac{850}{68} \times 100 = 1250$

12. (b) Required% $= \frac{15}{18}\times 100 = \frac{5}{6}\times 100 \approx 83\%$

13. (b) Required% $= \frac{1342}{1666} \times 100$

$= \frac{671}{833}\times 100 = 80.55\%$

14. (b) Required average $= \frac{85+80+75+70}{4} = \frac{310}{4} = 77.5$

Now, required percentage $= \frac{77.5}{100} \times 100 = 77.5\%$

15. (a) Required percentage $= \frac{45+65}{360} \times 100$

$= \frac{1100}{36} = \frac{275}{9} = 30\frac{5}{9}\%$

16. (a) Clearly from given table, Car S Shows continuous increase

17. (a) Clearly from given table, Car R shows continuous decrease.

18. (c) Total cakes by Q and S in september = 189 + 154 = 343
Total cakes by P and R in November = 168 + 168 = 336
$\therefore$ difference = 343 – 336 = 7

19. (b) From given table average percentage of passing students is least in college A.
= 68 + 72 + 78 + 80 = 298

20. (c) In 2015, highest earning is of R, ie, 68.

21. (a) Clearly, from given table wheat has continuous increase.

22. (c) 12% of total expenditure spent on education

Now, the required sum = $\frac{12}{100} \times 100000 = 12000$

23. (c) Required percentage = $100 \times \frac{\text{boys in B}}{\text{girl in E}} = \frac{30}{55} \times 100$

$= 54.54 \approx 55\%$

24. (d) Required ratio = $\frac{206+326}{350+420} = \frac{532}{770} = \frac{76}{110} = \frac{38}{55}$

25. (a) UK : Australia = 125° – 75° = 50°

$\Rightarrow \frac{50^\circ}{360^\circ} \times 14400 = 2000$

26. (c) According to given graph minimum employees in C organisation.

27. (a) Students in Y and Z = 55%
Student in X and Y = 75%
$\therefore$ Difference = 75 – 55 = 20%

$\frac{3600}{100} \times 20 = 720$

28. (d) Addicated males in Channai:-

$= \frac{11}{20} \times 2{,}00{,}000 = 110000$

29. (c) Male in P = 4560 – 2210 = 2350
Male in R = 3052 – 1280 = 1772
$\therefore$ Required difference = 2350 – 1772 = 578

30. (b) $\frac{\text{books in C1}}{\text{avg. books}} = \frac{\frac{10}{100} \times 60}{\frac{60}{4}} = \frac{4}{10} = \frac{2}{5}$

31. (c) From given table:-
Bicycle has maximum students = 280 + 190 = 470

32. (c) Required% = $\frac{846}{1880} \times 100$

$= \frac{4230}{94} = \frac{2115}{47} = 45\%$

33. (c) The highest total sale is battery 32 AH
114 + 102 + 75 + 150 + 135 + 165 + 160 = 901

34. (b) Clearly from table maximum number of students are in Class VI = 160 + 166 + 152 + 142 + 144 + 160 = 924

35. (c) Runs in New Zealand and Pakistan = 14% + 16%

$= 30\% = \frac{30}{100} \times 4000 = 1200$

Runs agains Srilanka and Pakistan = 20% + 15% = 35%

$= \frac{35}{100} \times 5000 = 1750$

$\therefore$ Difference = 1750 – 1200 = 550

36. (c) Bananas sold = $\frac{30}{100} \times 1200 = 360$

37. (b) Avg. of A and C = $\left(\frac{55+13}{2}\right) \times \frac{2000}{100} \Rightarrow \frac{68000}{100} = 680$

38. (a)

	P	Q
2002 →	120	130 (more)
2005 →	205	240 (more)

From table, it is clear that company Q produce more than company P in 2002 and 2005.

39. (a) Required difference = S – Q = 205 – 198 = 7

40. (a) Total = 24h
Sleep = 8 hour

Required percentage = $\frac{8}{24} \times 100 = 33.33\%$

41. (d) Required number of students are:-

$\frac{(73-27)}{100} \times 350$

$= \frac{46}{100} \times 350 = 23 \times 7 = 161$

42. (c) Total people = 28 + 32 + 46 = 106

Required% = $\frac{9+7+13}{106} \times 100$

$= \frac{29}{106} \times 100 = 27.36\%$

43. (d) Required number of students = $\frac{22+10+8}{100} \times 6700 = 2680$

44. (b) Required females = $\frac{3}{8} \times \frac{80}{100} \times 8000 = 2400$

45. (d) Required ratio = $\frac{5000}{9000} = \frac{5}{9}$

46. (a) Required% = $\frac{50+12}{20+10} = \frac{62}{30} \times 100$

$= \frac{620}{3} = 206.66\%$

47. (d)

$$\text{Average production of milk} = \frac{40+50+30+20+25+30+40+30+20+20+30+25}{4}$$

$$= \frac{360}{4} = 90$$

48. (b) Required average $= \frac{800+600+900+1100+1200}{5}$

$$= \frac{4600}{5} = 920$$

49. (a) Required% $= \frac{(830+501+1330)-(650+450+1008)}{650+450+1008} \times 100$

$$= \frac{2661-2108}{2108} \times 100$$

$$= \frac{55300}{2108} = 26.23\%$$

50. (c) Required female:-

$$= \frac{3}{6} \times \frac{76}{100} \times 26000 = 9880$$

51. (b) Clearly, from graph leagal department has least number of employess in each organisation.

52. (b) Required difference = (280 + 365) – (350 + 260)
= 645 – 610 = 35

53. (d) Total expenditure = 8000 + 2000 + 6000 + 4000 = 20000
Clothing = 2000

Required% $= \frac{2000}{20,000} \times 100 = 10\%$

54. (b) Difference = 30% – 15% = 15%

Required amount $= \frac{15}{100} \times 300000 = \text{Rs.}45000$

55. (d) Required% $= \frac{30}{33+30+36+21} \times 100$

$$= \frac{30}{120} \times 100 = 25\%$$

56. (b) Required difference = 115 – 60 = 55 lakh

57. (b) Required number $= \frac{3}{4} \times 4000 - \frac{1}{3} \times 6000$

= 3000 – 2000 = 1000

58. (c) Required amount $= \frac{20+13}{100} \times 7500000$

= 33 × 75000 = 24,75,000

59. (d) Required% $= \frac{380-150}{380} \times 100$

$$= \frac{230}{380} \times 100 = \frac{1150}{19} = 60\frac{10}{19}\%$$

60. (b) Clearly, from the graph class IX has manimum no. of students.

61. (b) Required difference:-

$$\frac{320+240}{2} - \frac{320+200}{2} = 280 - 260 = 20$$

62. (b) Required angle $= \frac{30}{100} \times 360° = 108°$

63. (a) Total respondents = 200
Those who own a car = 25 + 15 + 10 + 5 = 55
Those who not own a car = 200 – 55 = 145

$$\Rightarrow \text{Required\%} = \frac{145}{200} \times 100 = 72.5\%$$

64. (a) Required ratio:-

$$= \frac{7000+6600}{8000+7600} = \frac{13600}{15600} = \frac{34}{39}$$

65. (a) Required difference:-

$$(15-10)\% = 5\% \text{ of } 1200 \text{ kg} = \frac{1}{20} \times 1200 = 60 \text{ kg}$$

66. (d) Required marks = 88 + 80 + 90 + 82 + 85 = 425

67. (c) Required% $= \frac{162 \times 100}{933} = 17.36\%$

68. (d) Required percentage $= \frac{20}{45} \times 100 = 44.44\%$

69. (d) From table it is clear that, lowest sale combination is:- B, 2010

70. (a) From the table it is clear that A has maximum employees.

71. (d) Required% $= \frac{(20-10)}{10} = \frac{10}{10} \times 100 = 100\%$

72. (c) Required difference = (45 – 40) × 100 = 500

73. (d) Required difference = (15 – 5)% = 10% of 100000
= 10,000

74. (d) Overall avg. increament of Kamal:-

$$\frac{65+55+75}{3} = \frac{195}{3} = \text{Rs.}65$$

75. (b) Required ratio $= \frac{212+168}{255+245} = \frac{380}{500} \Rightarrow 19:25$

76. (a) 2017 → expenditure → 80
2018 → expenditure → 100

Required% $= \frac{100-80}{80} \times 100 = 25\%$

77. (d) Required ratio $= \frac{69+63}{74+90} = \frac{132}{164} = \frac{33}{41}$

78. (a) Clearly, from table required city is:- 'B'

79. (d) Required average:-

$$= \frac{(4\times0)+(22\times1)+(15\times2)+(6\times3)+(4\times2)}{4+22+15+6+2} = \frac{22+30+18+8}{49} = \frac{78}{49}$$

= 1.59

80. (b) Required amount = $\frac{79.2°}{360°} \times 56800 = 12496$

81. (d) Required difference = Production of company & in 2018
– Production of company C in 2015
= 55,00,000 – 45,00,000 = 10,00,000 tonnes

82. (d) Average production of company X
$= \frac{30+45+25+50+40}{5} = 38$
Average production of company Y
$= \frac{25+35+35+40+50}{5} = 37$
Average production of company Z
$= \frac{35+40+45+35+35}{5} = 38$
Hence, Required Answer = X and Z

83. (d) From 2016 to 2017,
Required percentage increment
$= \frac{10}{25} \times 100\% = 40\%$
Rise in the productin of cars for company Y from 2016 to 2017 is 40 percent which is highest.

84. (b) Total production of model A mobiles in 2020 and model E mobiles in 2019
= 40% of 6500000 + 15% of 4000000
= 2600000 + 600000 = 3200000

85. (c) No. of trees are axed in 2016
= 18 + 25 + 18 + 20 = 81
No. of trees are axed in 2017
= 25 + 23 + 18.5 + 18 = 84.5
No. of trees are axed in 2018
= 23 + 24 + 18.4 + 17.6 = 83
No. of trees are axed in 2019
= 24.4 + 19.5 + 19 + 16 = 78.9
No. of trees are axed in 2020
= 22.5 + 21 + 20 + 17.5 = 81
Hence, The least number of trees are axed in 2019

86. (b) The student who got the highest marks in subject P1 = Vishal(82)
The student who got the highest marks in subject P2 = Viraj(89)
The student who got the highest marks in subject P3 = Viraj(86)
Hence, Required Answer = (b) Vishal, Viraj, Viraj

87. (c) Average Percentage marks obtained by all the students in Geography
$= \frac{88+92+64+80+88+72}{6} = \frac{484}{6} = 80.66\%$
Average Marks = 80.66% of 75 = 60.495 = 60.5

88. (a) Total Marks of student Q in Physics and Hindi
= 90% of 80 + 54% of 100
= 72 + 54 = 126
Total Marks of student T in Geography and History
= 88% of 75 + 42% of 50
= 66 + 21 = 87
Required percentage = $\frac{39}{87} \times 100\%$
= 44.82% = 45% (Approx)

89. (b) Total Maximum Marks
= 80 + 150 + 100 + 75 + 120 + 50 = 575
Marks obtained by student T
= 65% of 80 + 60% of 150 + 45% of 100 + 88% of 75 + 50% of 120 + 42% of 50
= 52 + 90 + 45 + 66 + 60 + 21 = 334
Required percentage
$= \frac{334}{575} \times 100\% = 58\%$

90. (c) Maximum marks
= 300 + 300 + 200 + 100 + 100 = 1000
Marks scored by X = (70% of 300) + (90% of 300) + (95% of 200) + (80% of 100) + (75% of 100)
= 210 + 270 + 190 + 80 + 75 = 825
Percentage marks obtained by X
$= \frac{825}{1000} \times 100\% = 82.5\%$

91. (b) Total number of students in Activity II
= 50 + 150 + 150 + 50 + 50 + 50 + 50 = 550
Total number of students in Activity IV
= 250 + 125 + 350 + 275 + 250 + 150 + 150 = 1550
Required percent = $\frac{550}{1550} \times 100\% = 35.48\%$

92. (b) Marks of students after deduction of 5 marks, 50, 85, 70, 75, 85
Mean = $\frac{50+85+70+75+85}{5} = 73$
Mode = 85
Median = 75
Net Average
$= \frac{\text{Mean} + \text{Mode} + \text{Median}}{3} = \frac{73+85+75}{3} = \frac{233}{3} = 77.67$

93. (a) Total contribution in corpus fund,
= 74.30 + 75.00 + 77.50 + 69.05 + 70.00 + 67.52
= 433.37
Contribution of Rakesh in Corpus fund = 75.00
Percentage contribution of Rakesh
$= \frac{75}{433.37} \times 100 = 17.30\%$

94. (d) Total population of village = 60000
In percentage, population of village D = 17%
In percentage, population of village E = 18%
Difference between population of village D and E
= 1% of Total population = $60000 \times \frac{1}{100} = 600$

95. (c) Total population = 50000
Population of Village D
$= 50000 \times \frac{17}{100} = 8500$

96. (d) Combined highest score in Accounts and Business studies
= 96 + 96 = 192
Combined highest score in Economics and English
= 100 + 100 = 200
Hence, Answer (d) Economics and English by 8

97. (c) Average Export of rice
$= \frac{10.4+13+15.6+21.6+18.8}{5} = \frac{79.4}{5} = 15.88$

98. (c) Average Export of Rice
$= \frac{10.4+13+15.6+21.6+18.8}{5} = \frac{79.4}{5} = 15.88$
In 2010, 2011 and 2012 there was less export than the average export.

99. (b) Total Production of wheat
= 113 + 96 + 42 + 47 + 32 + 25 + 18 + 38 = 411
% Production of P's Alone
$= \frac{113}{411} \times 100 = 27.49\% = 27.50\%$ (Approx)

100. (b) Total production of rice in the country–
= 55 + 58 + 69 + 51 + 47 + 78 + 67 + 48 = 473
Total production of wheat in the country–
= 113 + 96 + 42 + 47 + 32 + 25 + 18 + 38 = 411
Hence Required ratio = 473 : 411

101. (a) Given,
Total population of State B = 3000
Population below poverty line
= 60% of 3000
= 1800
Number of girls below poverty line
$= 1800 \times \frac{4}{6} = 1200$

102. (b) Population of village A in 2018 = 12381
Population of village A in 2021 = 13256
Increament = 13256 – 12381= 875
Percentage Increment
$= \frac{\text{Increment}}{\text{Population in 2018}} \times 100\%$
$= \frac{875}{12381} \times 100\% = 7.07\%$

103. (c) Average Population of village D
$= \frac{5152+5230+5346+5500}{4} = \frac{21228}{4} = 5307$

104. (b) Combined production of A and D for the year 2014 to 2016.
= 1350 + 570 + 420 + 810 + 990 + 580
= 4720
Combined production of B and C for the year 2014 to 2016,
= 750 + 520 + 1170 + 630 + 1280 + 650
= 5000
Required Difference
= 5000 – 4720 = 280

105. (c) Appeared in 1991 = 8562
Appeared in 1992 = 8139
Reduction = 8562 – 8139 = 423
Required Drop % $= \frac{423}{8562} \times 100\%$
= 4.940%
= 5% (Approx)

106. (d) The number of person who speaks English and Bhojpuri
= (15 + 10)% of 120
= 25% of 120 = 30
and, The number of person wh speaks Tamil = 5% of 120 = 6
Required Ratio = 30 : 6
= 5 : 1

107. (a) In 1995
No. of worker in category B is 15% = 1500
Therefore, No. of worker in Category D is 25% = 2500
In 1996
No. of worker is increased by 10% in category B
= 110% of 1500 = 1650
No. of worker is decreased by 5% in category D
= 95% of 2500 = 2375
Hence, Required Sum
= 1650 + 2375
= 4025

108. (c) The number of empolyee of company B in 2019 = 18 lakh
The number of empolyee of company C in 2021 = 17 lakh
Required percentage
$= \frac{18}{17} \times 100\% = 105.88\%$

109. (b) The length of mountains in Punjab = 40
The length of rivers in odisha = 10
Difference between the mountains and rivers lengths
= 40 – 10 = 30
Required percentage = $\frac{30}{10} \times 100\% = 300\%$

110. (c) The average of appeared students

$$= \frac{2500+3000+4500+1200}{4}$$

$$= \frac{11200}{4} = 2800$$

The average of passed students

$$= \frac{1350+2500+3900+850}{4}$$

$$= \frac{8600}{4} = 2150$$

Hence, difference between average
= 2800 – 2150 = 650

111. (d) Total marks = 300 + 300 + 150 + 300 + 200 = 1250
Marks obtained by Mohan:
In Chemistry – 70% of 300 = 210
In Mathematics – 75% of 300 = 225
In Physics – 80% of 150 = 120
In Hindi – 65% of 300 = 195
In English – 85% of 200 = 170
Total obtained marks = 210 + 225 + 120 + 195 + 170 = 920
Average marks percentage

$$= \frac{\text{Obtained marks}}{\text{Total marks}} \times 100\%$$

$$= \frac{920}{1250} \times 100\% = 73.6\%$$

112. (c) Average consumption of wheat

$$= \frac{162+196+187+189}{4} = 183.5$$

Average consumption of oats

$$= \frac{131+116+103+101}{4} = 112.75$$

Difference = 183.5 – 112.75 = 70.75

113. (b) No. of students who opted Biology in School D = 20% of 800 =160

114. (c) Number of students in school B who opted biology

$$400 \times \frac{36}{100} = 144$$

Number of students in school D who opted biology

$$800 \times \frac{18}{100} = 144$$

Required Ratio = 1 : 1

115. (b) By option–
No. of vehicles sold in the following combinations:
in A, 2011 = 700000
in B, 2014 = 710000
in C, 2014 = 690000
in D, 2012 = 700000
Maximum in combination –B, 2014
Hence, Required answer is (b)

116. (a) Money spent on Food and Rent
= (25 + 12)% of Total Expenditure
= 37% of 65000
= 24050

117. (b) Central angle for Anil's expenses on Power and fuel–

$$= \frac{15}{100} \times 360°$$

$$= 54°$$

118. (c) Check By option:
Number of Books issued in January = 4500
Number of Books issued in April = 4800
Number of Books issued in May = 6800
Number of Books issued in February = 6000
Maximum number of books were issued in May

119. (a) $J = \frac{1500+1460+1105}{3} = \frac{4065}{3} = 1355$

$$K = \frac{1320+1180+1170}{3} = \frac{3670}{3}$$

Average of J and K

$$= \frac{1355+1223.33}{2} = \frac{2578.33}{2} = 1289.165 = 1289.17$$

120. (c) Total number of male in all village
= 1500 +1460 + 1105 + 1305
= 5370
Total number of female in all village
= 1220 + 1320 + 1180 + 1170
= 4890
Required ratio = 5370 : 4890
= 179 : 163

121. (b) Total sale of Type D geyser
= 98 + 112 + 109 + 102 + 124 + 134 = 679
Total sale of Type A geyser
= 75 + 100 + 105 + 100 + 95 + 85 = 560
Total sale of Type C geyser
= 103 + 103 + 112 + 123 + 102 + 134 = 677
Total sale of Type B geyser
= 122 + 102 + 108 + 189 + 123 + 145 = 789
Hence Required Answer is (b).

122. (c) Average % of History $= \frac{90}{200} \times 100 = 45\%$

Average % of Geography $= \frac{35}{100} \times 100 = 35\%$

Average % of Mathematics $= \frac{88}{200} \times 100 = 44\%$

Average % of Science $= \frac{120}{200} \times 100 = 60\%$

Average % of English $= \frac{90}{150} \times 100 = 60\%$

Hence, Required answer is (c) Science and English.

123. (b) Given,

People below the age of 36 years = 30 million

$\Rightarrow$ (15.00 + 20.25 + 16.75)%

= 30 million

$\Rightarrow$ 52% = 30 million

$\Rightarrow 1\% = \frac{30}{52}$ million

The number of people to the age group 56 – 65 is:

$\Rightarrow 5.50\% = \frac{30}{52} \times 5.5 = 3.17$ million

124. (b) Number of students scoring less than 50% marks = 270 + 120 + 300 + 220 + 200 = 1110

Number of students scoring more than 50% marks = 55% of 600 + 40% of 400 + 20% of 375 + 10% of 350 + 25% of 300

= 330 + 160 + 75 + 35 + 75 = 675

Total number of students

= 600 + 400 + 375 + 350 + 300 = 2025

Exactly 50% scoring students

= 2025 – (1110 + 675) = 240

Required Ratio = 1110 : 240 = 111 : 24

125. (c) Increment% production in sprite

$= \frac{5800-5400}{5400} \times 100\% = 7.40\%$

Increment% production in Cocacloa

$= \frac{5600-5300}{5300} \times 100\% = 5.66\%$

Increment% production in Pepsi

$= \frac{6800-6000}{6000} \times 100\% = 13.33\%$

Increment% production in Fanta

$= \frac{2700-1800}{1800} \times 100\% = 50\%$

Thus maximum % increment in 'Fanta'.

126. (d) Average sales of companies B and D in 2012

$= \frac{18+21}{2} = \frac{39}{2} = 19.5$

Average sales of companies A and E in 2011

$= \frac{11+18}{2} = \frac{29}{2} = 14.5$

Required percentage $= \frac{14.5}{19.5} \times 100\% = 74.36\%$

127. (c) Maximum number of centruies scored in 2019 = 5

128. (c) We can see in the figure

Cricketer B has scored maximum number of centuries = 5

129. (d) Number of centuries scored by A = 3

Number of centruies scored by E = 3

Hence, Answer (d).

130. (b) Overall Average % of Chemistry

$= \frac{90+75+65+85+95+90}{6} = \frac{500}{6} = 83.33\%$

Overall Average % of Geography

$= \frac{80+85+95+95+95+90}{6} = \frac{540}{6} = 90\% = 90\%$

Overall Average % of History

$= \frac{70+85+90+90+90+90}{6} = \frac{515}{6} = 85.83\%$

Overall Average % of CS

$= \frac{95+90+80+85+80+90}{6} = \frac{520}{6} = 86.67\%$

Hence, Answer (b) Geography.

131. (c) Revenue in year 2016

= 50 lakhs + 30% of 50 lakhs = 50 lakhs + 15 lakhs

= 65 lakhs

132. (c) Average Export from the year 2000 to 2004–

$= \frac{60+110+120+120+150}{5} = \frac{560}{5} = 112$

133. (a) Average wages for task T1

$= \frac{4+2+3+4+5+3}{6} = \frac{21}{6}$

Average wages for task T3

$= \frac{3+4+5+4+3+4}{6} = \frac{23}{6}$

Difference $= \frac{23}{6} - \frac{21}{6} = \frac{2}{6} = \frac{1}{3}$

134. (a) In the given table, you can see that the production of barley is continuously increasing.

135. (a) Production of Activated Carbon Masks in month of April and June = 250

Hence Answer (a) April and June

136. (b) The average number of patients visiting the dental clinic for Cleaning and polishing of teeth, Fixing crowns and bridging and Teeth whitening.

$= \frac{(410+880+360)+(160+970+270)+(520+680+530)+(440+590+280)}{12}$

$= \frac{1650+1400+1730+1310}{12} = \frac{6090}{12} = 507.5$

The average number of patients visiting the dental clinic or Orthodontic treatment

$= \frac{680+790+460+1020}{4} = \frac{2950}{4} = 737.5$

Now, Difference = 737.5 – 507.5 = 230

The percentage of patients $= \frac{230}{737.5} \times 100\% = 31.2\%$

Answer (b) Less by 31.2%

137. (c) $75\% = \frac{3}{4} \begin{matrix} \longrightarrow \text{Female} \\ \longrightarrow \text{Total} \end{matrix}$

Male : Female = 1 : 3

138. (a) Number of Male Teachers in Hindi
= 20% of 50 = 10
Number of Male Teachers in English
= 10% of 40 = 4
Number of Male Teachers in Mathematics
= 65% of 60 = 39
Number of Male Teachers in Science
= 50% of 30 = 15
Number of Male Teachers in Social Science
= 25% of 40 = 10
Hence, the maximum number of male teachers are in Mathematics.

139. (b) Total Marks of student A
= 60 + 70 + 80 = 210
Total Marks of student B
= 50 + 45 + 55 = 150
Total Marks of student C
= 70 + 60 + 55 = 185
Total Marks of student D
= 75 + 80 + 75 = 230
Hence, D has secured first rank.

140. (a)

Scores	Frequency (f)	x	fx
0 – 10	2	5	10
10 – 20	4	15	60
20 – 30	12	25	300
30 – 40	21	35	735
40 – 50	6	45	270
50 – 60	3	55	165
60 – 70	2	65	130
Total	50		1670

$$\text{Mean} = \frac{\Sigma fx}{\Sigma f} = \frac{1670}{50} = 33.4$$

141. (d) Required percentage $= \frac{31}{20} \times 100\% = 155\%$

142. (d) Required percentage $= \frac{22}{21} \times 100\% = 104.76\%$

143. (a) Average of students playing rugby, hockey, badminton and squash –

$$= \frac{30+60+20+10}{4} = \frac{120}{4} = 30$$

Average of students playing tennis and football–

$$= \frac{20+80}{2} = \frac{100}{2} = 50$$

Required percentage $= \frac{30}{50} \times 100\% = 60\%$

144. (b) Number of students opting Economics = 75
Number of students opting Physical Education = 125
Hence, Required Ratio = 75 : 125 = 3 : 5

145. (b) Total number of students of all subjects in 2020 and only Geography in 2021
= 75 + 100 + 60 + 125 + 75 +75 = 510

146. (b) Total distance covered by the first employee during the first three days
= 200 + 300 + 200 = 700
Total distance covered by the second employee during the last three days–
= 250 + 350 + 100 = 700
Hence, Required Ratio = 1:1

147. (a) The number of students participated in science olympiad–
= 100 + 100 + 150 + 200 + 80 = 630
The number of students participated in GK olympiad–
= 182 + 200 + 120 + 130 + 183 = 815
Increment = 815 – 630 = 185
Required Increment Percentage

$$= \frac{185}{630} \times 100\% = 29.365\% \text{ i.e. } 29.37\%$$

148. (a) In Entertainment Sector–
Successful Startup : Total Startup
= 175 : 560 = 5 : 16

149. (d) The ratio of the number of successful start-ups to that of unsuccessful start-ups in Fintech sector
= 104 : (256 – 104)
= 104 : 152 = 13 : 19

150. (c) Income from Market Tax, 26%
= 260 Crore
Income from other Taxes
= (40 + 12 + 16 + 6)%
= 74%
Hence, Required Income – 74%
= 740 Crore

151. (d) Money spent on Basketball

$$= 12000000 \times \frac{25}{100} = 3000000$$

152. (b) Given,
Total Marks = 1800
Difference b/w the marks of Maths and Science

$$= 1800 \times \frac{84-82}{360} = 1800 \times \frac{2}{360} = 10$$

153. (c) In 1996, the percentage increase in FDI over the previous year was the highest.

154. (b) Population in 2006 = 9.5
Population in 2007 = 11.4
Percentage increase

$$= \frac{1.9}{9.5} \times 100\% = 20\%$$

155. (d) Total Production in 1994 = 237
Total Production in 1998 = 334
Increase Percentage

$$= \frac{97}{237} \times 100\% = 40.92\% = 41\%$$

156. (c) Required Ratio $= 31\% : \frac{69}{4}\%$

$= 124 : 69$

157. (c) Average number of units sold by the company per year

$$= \frac{1.7 + 1.5 + 1.0 + 1.4 + 2.1}{5} = \frac{7.7}{5} = 1.54$$

Since, The given data is in hundreds.
Required Answer = 1.54 × 100 = 154

158. (a) The quantity of E used in month of March = 308
Total quantity used in month of May
= 270 + 390 + 280 + 250 + 350 = 1540
Required percentage

$$= \frac{308}{1540} \times 100\% = 20\%$$

159. (b) In 2007, the percentage of type E cars sold out of the total numbers of cars sold was minimum.

160. (b) The average number of delivery partners who joined Twiggy in the last 6 years

$$= \frac{1.2 + 1.5 + 2.4 + 2.8 + 3.2 + 3.6}{6} = 2.45$$

Since, the given data is in Thousands.
So,
Required Average = 2.45 × 1000 = 2450

161. (a) Total number of passed students = 112

★★★★★