DATA INTERPRETATION TABLE GRAPH

Directions (Q. 1-5): Following table shows the marks scored by seven students in six different subjects.

Subjects → / Full marks → / Students ↓	Hindi (80) Marks obtained	Eng (80) Marks obtained	Maths (100) Marks obtained	Phy (40) Marks obtained	Chem (40) Marks obtained	Bio (40) Marks obtained
P	44	65	87	36	30	24
Q	51	48	93	28	27	31
R	62	57	74	32	28	32
S	65	55	67	21	25	28
T	54	64	69	27	24	27
U	48	60	78	35	32	30
V	55	70	81	30	28	33

1. What is the percentage difference between the marks scored by student 'V in Hindi and student 'S' in Chemistry?
   (1) 5.75% (2) 6.25% (3) 6.75% (4) 7.25% (5) 7.5%
2. What is the average of marks obtained by all students in English? (Answer in approximate value)
   (1) 57 (2) 55 (3) 60 (4) 64 (5) 51
3. In how many subjects did student 'Q' get more than 65% marks?
   (1) nil (2) one (3) two (4) three (5) four
4. What is the difference between the percentage of marks obtained by student 'R' in Hindi and Physics together and the percentage of marks obtained by student 'Q' in English and Chemistry together?
   (1) 11.4% (2) 15.8% (3) 12.6% (4) 17.5% (5) 21%
5. What is the overall percentage of marks scored by student 'V in all subjects together? (Answer in approximate value)
   (1) 68% (2) 73% (3) 75% (4) 78% (5) 81%

Directions (Q. Nos. 6-10) ***Study the table carefully to answer the questions that follow:***
Candidates who appeared and passed in the test from four schools in six different years

Year	School							
	A		B		C		D	
	Appeared	Passed	Appeared	Passed	Appeared	Passed	Appeared	Passed
2004	124	78	445	354	454	343	546	345
2005	234	124	545	435	732	567	565	456
2006	456	235	664	454	693	456	235	112
2007	398	156	345	144	645	545	546	234
2008	546	346	584	354	354	258	656	564
2009	547	435	704	347	578	313	456	252

6. What was the total number of failed candidates from school-C in the year 2008 and the number of candidates who appeared in the exam from school-D in the year 2006?
   (1) 335 (2) 325 (3) 322 (4) 332 (5) None of these

7. In which year was the difference between the number of candidates who appeared and passed in the exam from school-B second lowest?
(1) 2004 (2) 2005 (3) 2006 (4) 2007 (5) 2008

8. What was the respective ratio between the number of candidates who appeared from school-C in the year 2006 and the number of candidates who passed in the exam from school-D in the year 2009?
(1) 11 : 4 (2) 11 : 5 (3) 5 : 11 (4) 9 : 11 (5) None of these

9. Number of candidates who passed in the exam from school B in the year 2005 was approximately what per cent of number of candidates who appeared from school-A in the year 2008?
(1) 76 (2) 87 (3) 90 (4) 84 (5) 80

10. What was the approximate percent increase in the number of candidates who passed in the exam from school-A in the year 2009 as compared to the previous year?
(1) 22 (2) 39 (3) 26 4) 30 (5) 34

Directions (Q. Nos. 11-15) Study the following table carefully to answer the questions that follow.

Amount earned (in lacs) by five persons in six different years

Year	Person				
	A	B	C	D	E
2005	2.24	4.33	5.64	3.73	1.69
2006	1.44	3.34	6.93	5.52	5.52
2007	4.63	2.79	7.52	5.68	4.28
2008	6.65	6.63	5.83	6.74	6.83
2009	5.34	4.5	5.94	8.42	5.53
2010	7.38	5.36	7.84	9.45	9.94

11. What was the average of the earning of Person-B in **the** year 2006, that of person C in the year 2008 and that of E in the year 2005 together?
(1) ` 3.62 lac (2) ` 2.64 lac (3) ` 3.64 lac (4) ` 10.86 lac (5) None of these

12. What was the respective ratio between the amount earned by Person-B in the year 2007 and Person-D in the year 2010?
(1) 32 : 107 (2) 31 : 105 (3) 29 : 107 (4) 32 : 105 (5) None of these

13. What is the **approximate** per cent increase in the amount earned by Person-D in the year 2010 as compared to the previous year?
(1) 7 (2) 21 (3) 18 (4) 15 (5) 12

14. Whose earning increased consistently from the year 2005 to the year 2010?
(1) A (2) B (3) C (4) D (5) E

15. Total amount earned by Person-A in the year 2006 and Person-C in the year 2010 together was **approximately** what per cent of the amount earned by Person-E in the year 2009?
(1) 151 (2) 155 (3) 168 (4) 174 (5) 162

Directions (Q. 16-20): Following table shows the number of candidates appeared and qualified in an entrance examination of six schools during the period of 2005-2010.

YEAR	2005		2006		2007		2008		2009		2010	
SCHOOL	A	Q	A	Q	A	Q	A	Q	A	Q	A	Q
S_1	840	275	625	215	910	525	825	480	890	480	595	390
S_2	935	355	740	320	885	440	745	360	815	450	615	320
S_3	715	310	780	410	765	410	550	240	720	410	810	425
S_4	720	400	575	240	775	350	470	225	590	250	925	540
S_5	685	275	645	300	810	370	630	310	680	280	780	450
S_6	760	280	530	225	925	480	690	345	650	375	725	375

A → Appeared, Q → Qualified

16. What is the difference between the total number of candidates who appeared and the total number of candidates who qualified in the year 2006 in all six schools together?
(1) 2175 (2) 2180 (3) 2185 (4) 2190 (5) 2195

17. For which of the following years the number of candidates who qualified as a percentage of those who appeared for School S_6 is maximum?
(1) 2005 (2) 2006 (3) 2007 (4) 2009 (5) 2010

18. What is the percentage of the total students who qualified with respect to the total students who appeared for School S_1, taking all six years together?
(1) 47.24% (2) 50.48% (3) 51.75% (4) 53% (5) 56.25%

19. Which of the following schools has the maximum percentage of students who qualified with respect to the number of candidates who appeared in the year 2009?
(1) S_1 (2) S_2 (3) S_3 (4) S_5 (5) S_6

20. What is the per cent rise in the number of candidates who qualified from 2009 to 2010 for School S_4?
(1) 46% (2) 96% (3) 112% (4) 116% (5) 216%

Directions (Q. 21-25): Following table shows the percentage marks scored by seven students in six different subjects. Maximum marks of each paper are 80.

Students	Percentage of Marks (out of 80)					
	P_1	P_2	P_3	P_4	P_5	P_6
A	58.75%	78.75%	81.25%	82.50%	77.50%	76.25%
B	63.75%	60%	65%	88.75%	83.75%	85%
C	68.75%	71.25%	58.75%	83.75%	55%	67.50%
D	52.50%	76.25%	63.75%	61.25%	58.75%	66.25%
E	85%	78.75%	70%	73.75%	67.50%	80%
F	87.50%	90%	77.50%	71.25%	73.75%	76.25%
G	81.25%	72.50%	87.50%	70%	81.25%	93.75%

21. What is the total marks scored by A in all six subjects?
(1) 357 (2) 361 (3) 363 (4) 364 (5) 365

22. What is the approximate average of marks obtained by all seven students in subject P_5? (Rounded off up to two digits)
(1) 55.24 (2) 56.85 (3) 57.54 (4) 58.48 (5) 59.62

23. The marks scored by E in paper P_1 is approximately what per cent of the marks scored by D in the same paper?
(1) 154.6% (2) 158.4% (3) 161.9% (4) 163.2% (5) 167.5%

24. What is the overall percentage of marks of student C?
(1) 67.5% (2) 68.5% (3) 69.5% (4) 70.5% (5) 71.5%

25. What is the average of the percentage of marks obtained by all students in papers P_2 and P_5 together?
(1) 79.82% (2) 77.42% (3) 75.04% (4) 74.43% (5) 73.21%

Directions (Q. 26-30): Following table shows the percentage of boys and difference between the number of boys and the number of girls among the students of six different schools who appeared in board examination in different years.

	1986		1987		1988		1989	
	% boys	Diff	% boys	Diff	% boys	Diff	% boys	Diff
A	70%	68	60%	35	75%	92	60%	43
B	40%	42	48%	9	45%	24	60%	45
C	44%	30	55%	12	60%	26	56%	12
D	44%	42	57%	42	55%	36	65%	96
E	75%	140	60%	68	70%	132	66%	112
F	44%	45	56%	48	65%	114	45%	42

26. What is the average of the number of boys who appeared from School E, taking all the four years together?
(1) 212 (2) 217 (3) 219 (4) 222 (5) 227

27. What is the total number of girls who appeared in the examination from all the six schools in the year 1987?
(1) 682 (2) 693 (3) 702 (4) 707 (5) None of these

28. What is the difference between the total number of students appearing from School B in the year 1987 and that in 1989?
(1) 17 (2) 29 (3) 35 (4) 46 (5) None of these

29. What is the ratio of the total number of boys appeared from School C in 1986 to the total number of girls appeared from School E in the year 1988?
(1) 5:4 (2) 8:7 (3) 9:8 (4) 10:9 (5) None of these

30. Total number of students appearing from School F in the year 1986 is what per cent of the total number of students appearing from School C in the year 1986?
(1) 66.66% (2) 90% (3) 120% (4) 150% (5) None of these

Directions (Q.31-35): Study the table carefully to answer the questions that follow :
Number of animals in grassland of four different countries in five different years

Year	Country											
	South Africa			China			Sri Lanka			England		
	Tiger	Lion	Bear	Tiger	Lion	Bear	Tiger	Lion	Bear	Tiger	Lion	Bear
1990	145	156	250	320	346	436	280	468	255	423	342	234
1995	134	165	354	445	256	542	354	354	343	368	136	345
2000	120	135	324	583	325	454	433	345	545	354	267	456
2005	110	184	285	466	475	322	343	324	546	562	235	567
2010	160	224	264	411	535	534	535	532	453	349	345	324

31. What is the average of the number of tigers in grassland of Sri Lanka over all the years together ?
(1) 386 (2) 389 (3) 369 (4) 276 (5) None of these

32. What was the difference between the total number of lions and bears in the grassland of England in the year 2005 and the number of tigers in the grassland of South Africa in the year 1995 ?
(1) 597 (2) 558 (3) 677 (4) 668 (5) None of these

33. Total number of animals together in grassland, of China in the year 1990 was approximately what percent of total number of bears in the grassland of Sri Lanka overall the years together ?
(1) 44% (2) 56% (3) 41% (4) 47% (5) 51%

34. If 35 percent of the total number of animals in the grassland of China in the year 2010 died due to an epidemic, how many animals remained in the grassland of China in the year 2010 ?
(1) 976 (2) 952 (3) 986 (4) 962 (5) None of these

35. What was three fourth of the total number of lions in the grassland of all the four countries in the year 2000 ?

(1) 848 (2) 868 (3) 804 (4) 824 (5) None of these

Directions (Q. 36-40): Study the following table carefully and answer the given questions.

Company	2009				2010			
	Total Production	$I_1 : I_2$	% Sold	Sold $I_1 : I_2$	Total Production	$I_1 : I_2$	% Sold	Sold $I_1 : I_2$
A	36	5 : 4	42%	3 : 4	48	9 : 7	65%	7 : 6
B	28	3 : 4	60%	8 : 7	40	5 : 3	56%	3 : 5
C	32	1 : 3	55%	5 : 6	36	1 : 2	50%	3 : 2
D	40	3 : 5	72%	5 : 4	50	2 : 3	48%	5 : 3
E	25	3 : 2	50%	2 : 3	30	3 : 2	40%	1 : 1
F	30	2 : 1	75%	8 : 7	45	4 : 5	80%	7 : 9

Total production is in lakhs and I_1 and I_2 are the two different models of the items.

36. What is the total number of items sold by all six companies in 2009?

(1) 107.48 lakh (2) 109.76 lakh (3) 113.32 lakh (4) 115.8 lakh (5) 160 lakh

37. What is the total number of I_1 items sold by Company D in year 2009 and 2010 together?

(1) 28.8 lakh (2) 30.6 lakh (3) 31 lakh (4) 32.4 lakh (5) 36 lakh

38. The percentage items sold by Company B in the year 2010 is what per cent of the percentage of items sold by CompanyEin2010?

(1) 48% (2) 96% (3) 120% (4) 140% (5) 71.42%

39. What is the total number of I_2 items which remained unsold in Company D in 2009 and 2010 together?

(1) 12.2 lakh (2) 21 lakh (3) 33.2 lakh (4) 36.4 lakh (5) None of these

40. I_1 items sold by Company A in the year 2010 is what percentage of I_1 items sold by Company E in the year 2009? (Approximate value)

(1) 336% (2) 240% (3) 180% (4) 112.5% (5) 29.76%

Directions (Q. 41-45): Following table shows the number of items (in thousand) produced by four different companies (A, B, C and D) and the ratio of sold to unsold items among them.

Company → / Year ↓	A		B		C		D	
	Total	S : US	Total	S : US	Total	S : US	Total	S : US
2006	45.5	4 : 3	64.8	5 : 3	42.14	4 : 3	50	3 : 2
2007	48.6	5 : 4	70.15	3 : 2	49.5	4 : 5	52.7	8 : 9
2008	40	2 : 3	77.11	5 : 6	51	9 : 8	56.4	1 : 1
2009	55	3 : 2	86.4	5 : 3	54	1 : 1	51	2 : 1
2010	64.4	3 : 4	85	8 : 9	66.22	6 : 5	60.5	2 : 3
2011	68	5 : 3	81.18	5 : 4	68.8	5 : 3	62.1	3 : 2

41. What is the number of items sold by Company A in all six years together? (Answer options are in thousand)

(1) 168.4 (2) 171.6 (3) 172.1 (4) 173.2 (5) None of these

42. What is the average number of items produced by Company D in all six years (Answer options are in thousand)

(1) 54.25 (2) 55.45 (3) 56.75 (4) 57.5 (5) None of these

43. The number of items sold by Company D in the year 2009 is what percentage of the number of items which remain unsold by Company C in the year 2008?
(1) 58.82% (2) 80% (3) 120% (4) 150% (5) 170%

44. The number of items which remain unsold by Company C in 2008 is what percentage more or less than the number of items which are sold by Company B in the year 2010?
(1) 16% (2) 24% (3) 32% (4) 40% (5) 48%

45. What is the difference between the total items sold and the total items that remain unsold by Company D in all six years together?
(1) 24220 (2) 25640 (3) 26380 (4) 27550 (5) None of these

Direction(Q.46-50): Following table shows the marks scored by six students in different subjects:

Student	Subject					
	Maths (150)	Hindi (120)	English (100)	Science (100)	Sanskrit (50)	GK (80)
A	84	66	73	61	24	52
B	75	90	82	54	38	60
C	96	48	65	62	40	44
D	128	75	62	76	34	68
E	108	78	78	70	39	48
F	142	84	48	81	42	38

46. What overall percentage did student B get in all subjects together?
(1) 62.5% (2) 64% (3) 66.5% (4) 67.5% (5) 72%

47. What is the ratio of the total marks obtained by A to that obtained by F?
(1) 4:5 (2) 5:6 (3) 5:7 (4) 3:5 (5) None of these

48. What is the average of marks obtained by all the students in Hindi?
(1) 73.5 (2) 74.5 (3) 75 (4) 76.5 (5) 77.5

49. What is the average percentage of marks obtained by all the students in Maths? (Answer in approximate value)
(1) 62% (2) 65% (3) 68% (4) 70% (5) 72%

50. The total marks obtained by E is what percentage more than the total marks obtained by A? (Answer in approximate value)
(1) 9% (2) 11% (3) 13% (4) 15% (5) 17%

Directions (Q. 51-55): Following table shows the total number of tyres produced by six companies (in lakh), percentage of tyres rejected and percentage of tyres sold by these companies during the year 2008 and 2009.

Year	2008			2009		
Company	Total	Rejected	Sold	Total	Rejected	Sold
A	12.8	3.80%	67.90%	16.4	4.10%	72%
B	13.2	5.70%	88%	15.2	3.40%	76.40%
C	16	2.40%	72.10%	18.8	3.60%	82.10%
D	12.4	9.20%	76.40%	16.2	4.80%	87.50%
E	17.5	4.10%	81.90%	20.5	5.20%	80.90%
F	8.6	4.70%	90.60%	12.2	4.40%	81%
G	14.8	3.60%	83.70%	17.5	3.90%	78.20%

51. What is the percentage rise in the production of Company C from year 2008 to 2009?
(1) 12.5% (2) 15% (3) 17.5% (4) 20% (5) 22.5%

52. What is the percentage rise in the sale of Company F from year 2008 to 2009?
(1) 20.2% (2) 22.4% (3) 24.6% (4) 26.8% (5) 29%

53. What is the total number of rejected tyres from all companies together in year 2008?
(1) 441810 (2) 441820 (3) 441830 (4) 441840 (5) 441850

54. Total number of tyres sold by all companies in year 2009 is what percentage of total tyres produced in that year?
(1) 72% (2) 75% (3) 80% (4) 84% (5) 96%

55. For which of the following companies the rise in production is maximum from year 2008 to 2009?
(1) A (2) B (3) C (4) E (5) G

Directions (Q. 56-60): Following table shows the number of students appeared and passed in Board exam from four schools A, B, C and D.

School								
Year	A		B		C		D	
	A	P	A	P	A	P	A	P
2000	782	360	612	310	720	410	1020	802
2001	804	472	608	324	728	480	1135	840
2002	720	448	636	298	680	390	1084	864
2003	750	360	655	305	695	396	1096	766
2004	824	504	640	346	712	424	1180	752
2005	850	496	600	315	740	464	1165	780

P = Passed, A = Appeared

56. What is the difference between the total students appeared and total students passed from School A in all the six years together?
(1) 2060 (2) 2070 (3) 2080 (4) 2090 (5) None of these

57. What is the average number of students passed from all the four schools in the year 2001?
(1) 528 (2) 529 (3) 530 (4) 531 (5) 532

58. For which of me following schools is the percentage of students passed among those who appeared for the exam the minimum in the year 2005?
(1) A (2) B (3) C (4) D (5) None of these

59. What is the percentage rise in the number of students who passed from School A in the year 2003 to that in 2004?
(1) 32% (2) 36% (3) 40% (4) 44% (5) None of these

60. The total number of students who passed from School C in all the six years together is what percentage of the total students who appeared from School C in all the six years together? (Answer in approximate value)
(1) 56% (2) 58% (3) 60% (4) 62% (5) 64%

Directions (Q. 61-65): Study the table carefully and answer the questions that follow.
The table represents the percentage expenditure of the income of A, B, C, D, E and F on different items.

	% Expenditure from Annual Income					
Person	**Food**	**Rent**	**Transport**	**Clothes**	**Entertainment**	**Misc**
A	21.8%	15.0%	18.4%	12.5%	13.3%	19.0%
B	17.2%	18.0%	22.6%	15.0%	11.4%	15.8%
C	24.0%	16.3%	14.8%	11.2%	7.8%	25.9%
D	18.0%	19.5%	15.5%	12.0%	16.4%	18.6%
E	20.2%	16.4%	17.5%	14.0%	8.6%	23.3%
F	23.6%	18.5%	16.0%	13.8%	11.0%	17.1%

61. If the annual incomes of B and C are ` 216000 and ` 264000 respectively, what is the difference between the amount spent by them on transport?
(1) ` 9248 (2) ` 9414 (3) ` 9518 (4) ` 9608 (5) ` 9744

62. If the amounts of money spent on food by C and D are ` 72000 and ` 86400 respectively, then the annual income of C is what percentage of the annual income of D?
(1) 47.5% (2) 60% (3) 62.5% (4) 120% (5) 160%

63. The percentage of amount of money spent by E on entertainment is what percentage of the amount of money spent by F on transport?
(1) 53.75% (2) 72.5% (3) 87.25% (4) 112.5% (5) 186%

64. If the annual income of C and D together is ` 420000,what is the sum of the amount spent by C on rent and that by D oh miscellaneous items?
(1) `144410 (2) `145260 (3) `146580 (4) `147850 (5) None of these

65. If the monthly incomes of A and D are `40000 and `36000 respectively, then the amount of money spent by A on rent is what percentage more than the amount spent by D on clothes?
(1) 32.62% (2) 34.24% (3) 36.54% (4) 38.88% (5) 40%

Directions (Q. 66-70): Following table shows the number of viewers of different channels and the ratio of male to female among them. Based on the data given in the table, answer the given questions.

City	STAR PLUS		ZEE TV		SONY TV		COLORS	
	Total	M : F	Total	M : F	Total	M : F	Total	M : F
A	1394	7 : 10	1173	2 : 1	1043	3 : 4	1155	1 : 2
B	1265	2 : 3	1547	8 : 9	1323	1 : 2	1179	5 : 4
C	1056	4 : 7	1305	3 : 2	1404	7 : 5	1200	2 : 3
D	1236	5 : 7	1488	7 : 9	1195	3 : 2	1089	6 : 5
E	1053	4 : 5	1335	8 : 7	1428	8 : 9	1469	6 : 7
F	1302	1 : 2	1199	5 : 6	1254	9 : 10	1215	8 : 7

66. What is the average number of female viewers of ZEE TV taking all six cities together?
(1) 621 (2) 631 (3) 641 (4) 651 (5) 661

67. The total number of female viewers of COLORS TV from City C is what percentage of the total number of female viewers of STAR PLUS from City A? (Answer in approximate value)
(1) 82% (2) 88% (3) 96% (4) 108% (5) 114%

68. The average number of male viewers of SONY TV from all cities together is what percentage of the total number of viewers of STAR PLUS TV from City D? (Answer in approximate value)
(1) 30% (2) 40% (3) 50% (4) 60% (5) 70%

69. The total number of male viewers of ZEE TV from City C is what percentage more or less than the total number of female viewers of SONY TV from City F?
(1) 12.4% (2) 15.2% (3) 17% (4) 18.6% (5) 19.8%

70. What is the difference between the total number of male viewers and female viewers of ZEE TV from all six cities?
(1) 351 (2) 352 (3) 353 (4) 354 (5) 355

Directions (Q. 71-75) : Following table shows the total number of students appeared from different cities, ratio of boys and girls among those appeared students, percentage of passed students and number of passed girls among them.

	Total Appeared	Apeared Boys : Girls	Pass %	Number of girls passed
S_1	7210	3 : 2	60%	1268
S_2	4800	9 : 7	66%	1146
S_3	5670	5 : 4	70%	1432
S_4	6400	11 : 5	68%	975
S_5	7200	11 : 7	57%	1224
S_6	7080	7 : 5	65%	1565

71. What is the average number of boys appeared in the examination from all six cities?
(1) 3851 (2) 3852 (3) 3853 (4) 3854 (5) 3855

72. The total number of girls passed from City S_4 is what percentage of the total number of girls appeared from City S_4?
(1) 43.25% (2) 48.75% (3) 52.5% (4) 55% (5) 62.5%

73. What is the total number of boys failed in the examination from all six cities together?
(1) 6175 (2) 6180 (3) 6185 (4) 6190 (5) 6195

74. The total number of girls passed in the examination is approximately what percentage of the total number of girls appeared in the examination, taking all cities together?
(1) 42% (2) 50% (3) 56% (4) 64% (5) 72%

75. The total number of boys passed from City S_2 is what percentage more than the total number of girls passed from that city?
(1) 70.2% (2) 76.5% (3) 78.4% (4) 80% (5) 82.8%

Directions (Q. 76-80) : The following table shows the price (Rs. per 100 kg) of different items during different years. Answer the questions based on this table.

	1990	1995	2000	2005	2010
Rice	800	1150	1680	2400	3500
Wheat	450	700	1200	1650	2100
Pulses	2000	2700	3650	4600	6400
Sugar	1500	2200	3000	3800	4500
Groundnut	1200	1700	2450	3500	4200
Oil	4200	5500	6400	8000	11000

76. What is the percentage rise in the price of rice from year 1990 to year 2000?
(1) 10% (2) 110% (3) 52.3% (4) 90% (5) None of these

77. The price of 3 kg wheat in the year 1995 is what percentage more than the price of 1 kg of groundnut in the year 1990?
(1) 60% (2) 75% (3) 42.85% (4) 25% (5) None of these

78. What is the average price of 10 kg pulses (in Rs) over the years 1990 to 2010?
(1) 387 (2) 391 (3) 395 (4) 378 (5) 38.7

79. The average price of sugar is what percentage of the highest price of sugar over this period?
(1) 40% (2) 66.66% (3) 72.5% (4) 80% (5) None of these

80. In which of the following years was the percentage increase in the price of oil the highest over its preceding year?
(1) 1990-1995 (2) 1995-2000 (3) 2000-2005 (4) 2005-2010 (5) None of these

Directions (Q. 81-85) : In the following table the percentages of population of different age groups for five cities are given. Answer the questions based on this table.

City	$0 < \text{Age} \leq 13$	$13 < \text{Age} \leq 19$	$19 < \text{Age} \leq 35$	$35 < \text{Age} \leq 60$	$\text{Age} > 60$
A	18%	12%	24%	30%	16%
B	16%	18%	22%	29%	15%
C	20%	20%	20%.	25%	15%
D	15%	18%	21%	26%	20%
E	18%	15%	25%	24%	18%

81. If the number of peopLe of City A which belongs to 19-35 age group is 15840 how many people are there in the age group above 60 years?
(1) 10560 (2) 12140 (3) 11840 (4) 9675 (5) None of these

82. If the population of City E in the age group (0-13) years is 8100, then the population of the age group (0-13) years is what percentage of the population of the age group (13-19) years?
(1) 60% (2) 75% (3) 80% (4) 90% (5) 120%

83. If the population of City C and City D in the age group above 60 years are equal to 12000 each, what is the sum of the total population of City C and City D?
(1) 1.2 lakh (2) 1.4 lakh (3) 1.6 lakh (4) 2.0 lakh (5) 2.4 lakh

84. If the population of City A and City B in the age group (19-35) years are 8640 and 10560 respectively, what is the ratio of the total population of A to that of B?
(1) 2 : 3 (2) 3 : 4 (3) 4 : 5 (4) 5 : 6 (5) None of these

85. If the total population of City B and City E are 48000 and 65000 respectively, then the population of City E in the age group (0-13) years is what percentage more or less than the population of City B in the same age group?
(1) 47.24% (2) 49.5% (3) 56% (4) 57.5% (5) None of these

Directions (Q. 86-90): The following table shows the proportion of students passed in different streams in graduation from different cities. It also shows the ratio of Males to Females among the students.

City	Arts : Science : Commerce	Arts M : F	Science M : F	Commerce M : F
A	2 : 4 : 5	31 : 14	23 : 27	11 : 7
B	7 : 2 : 4	37 : 33	43 : 32	29 : 21
C	1 : 4 : 2	34 : 16	57 : 43	31 : 29
D	5 : 7 : 4	17 : 13	51 : 33	23 : 17
E	4 : 3 : 8	23 : 17	41 : 34	57 : 23
F	2 : 4 : 3	47 : 28	11 : 7	16 : 11
G	3 : 5 : 4	29 : 21	27 : 24	53 : 47

86. If the total number of Males who passed in Commerce stream from City G is 1272, what is the total number of students who passed in Arts from City G?
(1) 1800 (2) 2100 (3) 2400 (4) 3000 (5) 7200

87. If the total number of Males who passed from City A in Arts is 1240, what is the difference between the total number of students who passed in Commerce and that in Science from City A?
(1) 300 (2) 500 (3) 700 (4) 900 (5) 1100

88. If the total number of students who passed in Commerce from City F is 2700, the total number of students who passed from City F is what percentage of the total number of Science students who passed from City F?
(1) 44.44% (2) 75% (3) 150% (4) 180% (5) 225%

89. If the number of Females who passed, in Arts from City C is 384, the total number of Males who passed in Commerce from City C is what percentage of the total number **of** students who passed from City **C?** (Approximate value)
(1) 14.76% (2) 18.24% (3) 27.8% (4) 32.5% (5) 36%

90. The number of Females who passed in Commerce from City F is what percentage more or less than the total number of Males who passed in Commerce from City F?
(1) 45.45% less (2) 45.45% more (3) 31.25% less (4) 31.25% more (5) Can't be determined

Directions (Q. 91-95) : Following table shows the marks obtained by six students in six different subjects.

Students ↓	Subjects					
	S_1 (Out of 80)	S_2 (Out of 80)	S_3 (Out of 60)	S_4 (Out of 60)	S_5 (Out of 100)	S_6 (Out of 120)
A	38	42	33	28	77	72
B	60	50	42	38	68	66
C	64	36	32	35	72	80
D	42	65	48	42	52	84
E	32	64	45	46	87	35
F	35	48	30	28	82	48

91. What is the overall percentage of marks Student A scored in all subjects together?
(1) 55% (2) 56% (3) 57% (4) 58% (5) 59%

92. What is the average marks scored in the Subject S_5?
(1) 71 (2) 72 (3) 73 (4) 74 (5) 75

93. What is the ratio of the total marks scored by Student B to the total marks scored by Student D?
(1) 16 : 17 (2) 26 : 27 (3) 36 : 37 (4) 46 : 47 (5) 56 : 57

94. If for getting first division, a student needs to score minimum 60% marks in aggregate, then how many students are there who didn't get first class?
(1) One (2) Two (3) Three (4) Four (5) Five

95. The marks scored by Student B and Student C together in subject S_1 is what percentage of the marks scored by A and D together in that subject?
(1) 64.5% (2) 96% (3) 120% (4) 145% (5) 155%

Directions (Q. 96-100) : Study the following table and answer the questions given below. The given table shows the total number of candidates appeared, passed and selected in a competitive examination in different states for the period 2006 to 2011.

State	A			B			C			D		
Year	A	P	S	A	P	S	A	P	S	A	P	S
2006	5600	780	80	7500	480	75	4800	800	80	7500	700	95
2007	4200	800	120	6400	600	72	5500	450	60	7200	540	84
2008	5500	840	72	5400	520	104	4500	540	66	6500	660	77
2009	7200	600	96	6000	540	112	5100	500	55	5400	720	78
2010	8500	800	64	5100	700	60	6800	650	52	6400	640	64
2011	8000	850	68	7000	720	75	6000	640	60	5000	500	58

96. What is the difference between the average number of students selected in State B and that in State D during the whole period?
(1) 6 (2) 7 (3) 8 (4) 9 (5) 10

97. In the year 2006, which state had the highest percentage candidates passed over the candidates appeared?
(1) A (2) B (3) C (4) D (5) None of these

98. The total number of students selected in State C is approximately what percentage of the total number of students selected in State A?
(1) 70% (2) 75% (3) 80% (4) 85% (5) 90%

99. In which of the following years is the percentage of selected candidates with respect to passed candidates the highest in State D?
(1) 2006 (2) 2007 (3) 2008 (4) 2009 (5) 2011

100. The total candidates passed in State A in the year 2006 is what percentage more than the total candidates passed in State C in the year 2009?
(1) 16% (2) 36% (3) 44.4% (4) 51% (5) 56%

Directions (Q. 101-105) : Study the table carefully to answer the questions that follow

Number of cars (in thousand) of two models (Basic and Premium) produced by five different companies in five different years

Company	A		B		C		D		E	
Year	Basic	Premium	Basic	Premium	Basic	Premium	Basic	Premium	Basic	Premium
2006	4.4	2.5	5.6	2.4	5.4	6.1	7.6	7.5	2.7	5.1
2007	4.9	7.2	9.4	7.2	7.5	8.3	8.4	4.9	4.2	5.5
2008	13.6	15.5	14.8	9.5	12.8	9.9	9.2	8.2	7.7	11.5
2009	6.6	13.9	11.8	11.4	16.6	18.2	10.6	10.4	7.2	12.8
2010	5.8	14.9	12.2	7.2	19.9	22.3	14.6	12.2	13.2	12.2

101. The number of cars of premium model produced by Company D in the year 2009 was approximately what per cent of the total number of cars (both models) produced by Company C in the year 2007?
(1) 70 (2) 51 (3) 56 (4) 61 (5) 66

102. What was the approximate percentage decrease in the number of cars of basic model produced by Company B in the year 2009 as compared to the previous year?
(1) 15 (2) 20 (3) 10 (4) 80 (5) 85

103. What was the average number of cars of premium model produced by Company A over all the years together?
(1) 9000 (2) 8000 (3) 6000 (4) 48000 (5) None of these

104. In which year was the difference between the basic model and the premium model of cars produced by Company E the second highest?
(1) 2010 (2) 2006 (3) 2007 (4) 2008 (5) 2009

105. In which company did the production of cars of premium model consistently increase from the year 2006 to the year 2010?
(1) Both C and E (2) Both C and D (3) C only (4) D only (5) E only

Directions (Q. 106-110) : The table given below is a score card of a test match between two teams T_1 and T_2.

	T_1					T_2			
Player	**1st innings**		**2nd innings**		**Player**	**1st innings**		**2nd innings**	
	Run	**Ball**	**Run**	**Ball**		**Run**	**Ball**	**Run**	**Ball**
A_1	105	156	44	64	A_2	28	40	92	172
B_1	44	72	60	88	B_2	46	72	26	30
C_1	65	110	112	145	C_2	97	167	65	78
D_1	8	25	47	62	D_2	63	90	87	116
E_1	86	110	30	64	E_2	56	70	46	76
F_1	34	56	36	42	F_2	74	90	57	72
G_1	15	35	42	95	G_2	25	20	35	32
H_1	7	9	28	22	H_2	8	8	DNB	0
I_1	18	26	4	3	I_2	14	47	DNB	0
J_1	9	4	16	12	J_2	5	8	DNB	0
K_1	5	12	10	5	K_2	2	3	DNB	0

106. What is the average runs scored by the players of T_1 in the 1st innings?
(1) 35 (2) 36 (3) 37 (4) 38 (5) 40

107. The runs scored by players A_2, B_2 and C_2 in 1st innings is what percentage of the total runs scored by T_2 in 1st innings (approximate) ?
(1) 35 (2) 36 (3) 37 (4) 38 (5) 40

108. What is the ratio of runs scored by players G_1, H_1, I_1 and J_1 in 2nd innings to the runs scored by A_2, B_2, C_2 and D_2 in the 2nd innings?
(1) 1 : 3 (2) 2 : 3 (3) 3 : 4 (4) 4 : 5 (5) 3 : 5

109. What is the percentage rise/fall of runs scored by player G_1 from 1st innings to 2nd innings?
(1) 60% (2) 90% (3) 120% (4) 150% (5) 180%

110. The strike rate of player D_2 in the 2nd innings is how much more or less than the strike rate of E_2 in the 1st innings (strike rate is runs scored per 100 balls) ?
(1) 17.5% (2) 11.25% (3) 7.5% (4) 6.25% (5) 5%

Directions (Q. 111-115) : Study the table carefully to answer the questions that follow:

Number of Research Papers and Articles published by six different scholars (person) in five different journals

Journal	**Edutrack**		**Frontier**		**Educon**		**New Era**		**Eduforms**	
Person	**Research Papers**	**Articles**	**Research Papers**	**Articles**	**Research Papers**	**Articles**	**Research Papers**	**Articles**	**Research Papers**	**Articles**
Anand	27	45	17	48	42	38	8	12	22	11
Vijay	16	35	6	24	12	4	6	14	38	25
Naidu	26	39	12	32	22	18	2	24	57	35
Mohan	42	75	22	39	62	36	12	16	39	48
Neeta	48	32	28	30	54	49	32	24	44	32
Ronit	13	23	29	21	69	56	19	4	11	18

111. How much more is the approximate percentage of the number of Research papers that were published by Neeta in Educon as compared to the number of Research papers that were published by Vijay in Eduforms?
(1) 52 (2) 42 (3) 152 (4) 147 (5) 47

112. What is the difference between the total number of Research papers published by Anand, Vijay and Neeta together in Educon and the total number of Articles published by Mohan, Naidu and Ronit together in Edutrack?
(1) 33 (2) 27 (3) 32 (4) 29 (5) None of these

113. Who published the third highest number of Research papers and Articles together in Eduforms?
(1) Anand (2) Vijay (3) Neeta (4) Mohan (5) Naidu

114. What is the average number of Research papers published by all the six scholars together in Frontier?
(1) 14 (2) 16 (3) 17 (4) 15 (5) None of these

115. The total number of Research papers and Articles together published by Mohan in Edutrack is approximately what percentage of the total number of Articles published by all the six scholars together in New Era?
(1) 145 (2) 117 (3) 137 (4) 132 (5) 124

Directions (Q. 116-115) : Read the following table carefully and answer the following questions. The table shows the percentage of marks of students A, B, C, D, E and F got in different subjects—Maths, Physics, Chemistry, Biology, Hindi, English and Sanskrit—and each subject has different maximum marks.

Max Marks	Subject						
	Maths (200)	Physics (100)	Chemistry (100)	Biology (100)	Hindi (150)	English (150)	Sanskrit (80)
A	72%	77%	61%	67%	72%	78%	40%
B	44%	62%	78%	73%	60%	84%	55%
C	80%	68%	45%	56%	48%	64%	60%
D	66%	45%	65%	53%	46%	52%	30%
E	70%	55%	66%	63%	58%	38%	50%
F	63%	42%	48%	51%	66%	46%	75%

116. What is the percentage marks scored by Student B in all the subjects together?
(1) 62.2% (2) 63.75% (3) 64% (4) 67.5% (5) 57.5%

117. The marks scored by Student F in Hindi is what percentage of the marks scored by Student B in Maths?
(1) 112.5% (2) 88.88% (3) 78.5% (4) 117.5% (5) 120%

118. What is the average marks scored in English?
(1) 90 (2) 90.5 (3) 91 (4) 91.5 (5) 92

119. The total marks scored by Student A is what percentage more than the total marks scored by Student D? (Answer in approximate value)
(1) 18% (2) 24% (3) 30% (4) 32% (5) 36%

120. The percentage marks scored by Student B in Chemistry is what per cent of the percentage marks scored by C in Hindi?
(1) 122.5% (2) 132.5% (3) 142.5% (4) 152.5% (5) 162.5%

Directions (Q. 121-125) : Study the table below and answer the questions that follow:

Oil import from different countries over the years (in million tonnes)

Country	2007-08	2008-09	2009-10	2010-11	2011-12
Saudi Arabia	28.8	29.9	27.2	27.4	32.6
Iran	20.5	21.8	21.2	18.5	17.5
Iraq	15.8	14.4	15	17.2	24.6
Nigeria	11.6	10.5	13.2	15.9	14.2
Kuwait	13.9	14.8	11.8	11.5	17.8
Venezuela	7.2	7.6	7.3	10.3	9.6

121. What is the ratio of average of imports from Iraq to that from Venezuela for all the years?
(1) 14 : 29 (2) 29 : 14 (3) 39 : 23 (4) 23 : 39 (5) None of these

122. In which of the following years is the percentage increase/decrease in oil import from Nigeria the maximum?
(1) 2008-09 (2) 2010-11 (3) 2009-10 (4) 2011-12 (5) None of these

123. What is the approximate percentage of oil import from Iran in the year 2009-10 with respect to total oil import in all the years together?
(1) 20% (2) 23% (3) 21% (4) 25% (5) None of these

124. What is the approximate average of percentage increase or decrease in oil import from Kuwait over its previous year for the given period?
(1) 4% (2) 5% (3) 15% (4) 21% (5) None of these

125. Average oil import from all the countries in the year 2011-12 is approximately what percentage of that in the year 2009-10?
(1) 21.32% (2) 15.38% (3) 115.38% (4) 121.32% (5) None of these

Directions (Q. 126-130): Study the table and answer the questions that follow:

The first table shows the net sales of different organisations and YoY% change in their sales for the first quarter of FY 2012

Organisation	Net profit (in Rs. crore)	% change
Dutch Bank	7570	26.6
CLSA	6186	2.6
Morgan Stanley	7372	23
Motilal Oswal Security	599	24.1
HDFC Bank	609	26.1
Citi Bank	597	24.0

The second table shows the net profit and YoY% change in their profit for the first quarter of FY 2012.

Organisation	Net profit (in Rs. crore)	% change
Dutch Bank	546	-15.2
CLSA	502	-22
Morgan Stanley	623	-3
Motilal Oswal Security	377	20.4
HDFC Bank	359	14.6
Citi Bank	388	24.0

126. What was the approximate average (in ` crore) of net profits of Dutch Bank and CLSA in the first quarter of the previous year?
(1) 700 (2) 644 (3) 636 (4) 605 (5) None of these

127. What is approximate percentage of net sales of Dutch Bank with respect to the net sales of all the organisations in the first 'quarter of fiscal year 2012?
(1) 35% (2) 30% (3) 29% (4) 33% (5) None of these

128. Which of the following organisations has net profit to net sales ratio the maximum?
(1) CLSA (2) Morgan Stanley (3) Motilal Oswal
(4) HDFC Bank (5) Citi Bank

129. Which of the following banks has net profit to net sales ratio the least?
(1) Dutch Bank (2) CLSA (3) Morgan Stanley
(4) Motilal Oswal (5) HDFC Bank

130. What was the approximate average (in `) of net sales of HDFC and Citi Bank sales in the first quarter of the previous year?
(1) 482 crore (2) 473 crore (3) 462 crore
(4) 445 crore (5) Can't be determined

Directions (Q. 131-135) : The following table shows the population of six different cities, ratio of males to females among them, percentage of adult males and adult females (Population is given in lakh) :

City	Population (in lakh)	Males : Females	% Adult males	% Adult females
A	7.8	7 : 6	62%	65%
B	3.6	5 : 4	70%	72%
C	4.5	2 : 3	68%	64%
D	6.8	9 : 8	72%	70%
E	7.2	4 : 5	65%	72%
F	5.4	2 : 1	75%	64%

131. What is the difference between total adult males and total adult females in City A?
(1) 21500 (2) 22800 (3) 24200 (4) 26400 (5) 27500

132. What is the average number of adult males taking all six cities together?
(1) 1.98 lakh (2) 2.1 lakh (3) 2.42 lakh (4) 2.64 lakh (5) 3 lakh

133. The total number of minor females in City C is approximately what percentage more or less than the total number of minor males in City F?
(1) 8% (2) 10% (3) 12% (4) 15% (5) 16%

134. The total number of minor males in City E is approximately what percentage of the total number of adult males in City B?
(1) 60% (2) 75% (3) 80% (4) 96% (5) 120%

135. What is the difference between adult females and minor males in City C?
(1) 1.1141akh (2) 1.3261akh (3) 1.152 lakh (4) 1.6521akh (5) None of these

Directions (Q. 136-140) : The following table shows the percentage of marks scored by six students in six different subjects.

Students	Physics (80)	Chemistry (80)	Biology (80)	Hindi (100)	English (120)	Maths (150)
A	58.75%	55%	62.50%	67%	55%	84%
B	77.50%	60%	60%	72%	60%	72%
C	80%	71.25%	81.25%	65%	75%	66%
D	68.75%	78.75%	72.50%	55%	80%	60%
E	75%	70%	65%	48%	65%	78%
F	67.50%	87.50%	50%	75%	50%	70%

136. What is the total marks scored by Student D in all six subjects together?
(1) 411 (2) 413 (3) 415 (4) 417 (5) 419

137. What is the average marks scored by all students in Physics?
(1) 51 (2) 54 (3) 57 (4) 60 (5) 63

138. The marks scored by Student B in Maths is approximately what per cent of marks scored by Student E in Physics?
(1) 55.55% (2) 80% (3) 120% (4) 150% (5) 180%

139. What is the ratio of marks scored by Student B in English to marks scored by Student A in Maths?
(1) 3:5 (2) 4:7 (3) 5:9 (4) 3:4 (5) 4:5

140. The marks scored by Student F in Maths is approximately what per cent more or less than the marks scored by Student E in Chemistry?
(1) 75% (2) 77.5% (3) 82.5% (4) 85% (5) 87.5%

Directions (Q. 141-145) : The following table shows the population of six different cities, ratio of males to females among them, the percentage of literate males and the percentage of literate females. Answer the given questions based on this table.

City	Population (in lakh)	Males : Females	% Literate males	% Literate females
A	1.2	7 : 5	67%	57%
B	1.75	3 : 2	64%	60%
C	3.4	8 : 9	71%	53%
D	2.5	2 : 3	73%	61%
E	1.8	1 : 1	65%	65%
F	3.0	3 : 2	68%	56%

141. What is the total number of illiterate females in all six cities together?
(1) 2.769 lakh (2) 2.842 lakh (3) 2.888 lakh (4) 2.926 lakh (5) 2.964 lakh

142. The total number of illiterate females of City C is approximately what per cent of the total number of literate males of City F?
(1) 65% (2) 69% (3) 74% (4) 78% (5) 81%

143. What is the average number of literate females taking all six cities together?
(1) 62140 (2) 63580 (3) 63850 (4) 62410 (5) 64550

144. What is the ratio of illiterate males to literate females of City B?
(1) 3 : 5 (2) 4 : 9 (3) 9 : 10 (4) 3 : 10 (5) 5 : 8

145. What is the difference between total literate males of City A and B together and the total literate females of City C and D together?
(1) 64400 (2) 72800 (3) 84100 (4) 84400 (5) 9200

Directions (Q. 146-150): The following table shows the total number of students appeared in an entrance exam from six different schools in different years, and the ratio of passed to failed students among them. Answer the given questions based on this table.

School	2010		2011		2012	
	Total appeared	Pass : Fail	Total Appeared	Pass : Fail	Total appeared	Pass : Fail
A	646	11 : 8	754	7 : 6	672	3 : 5
B	847	4 : 7	845	8 : 5	952	9 : 8
C	810	8 : 7	792	7 : 4	637	4 : 3
D	876	7 : 5	828	11 : 7	988	7 : 12
E	870	3 : 2	726	7 : 4	715	8 : 5
F	986	17 : 12	867	12 : 5	924	8 : 13

146. What is the difference between the total number of passed students from School D in the year 2010 and the total number of failed students from School B in the year 2012?
(1) 56 (2) 60 (3) 63 (4) 68 (5) 72

147. What is the total number of failed students from School F in all three years together?
(1) 1145 (2) 1235 (3) 1325 (4) 1415 (5) 1505

148. What is the total number of passed students from all six schools in the year 2011?
(1) 2850 (2) 2940 (3) 2990 (4) 3010 (5) 3060

149. What is the average number of failed students from School C in all three years together?
(1) 311 (2) 312 (3) 313 (4) 314 (5) 315

150. The total number of passed students from School E in the year 2010 is approximately what percentage of the total number of failed students from School A in the year 2011?
(1) 66.66% (2) 80% (3) 112.5% (4) 125% (5) 150%

Directions (Q. 151-155): The following table shows the expenditure (in `crore) of three companies A, B and C and the percentage profit of these companies in different years.

Year	Company A		Company B		Company C	
	Expenditure	Profit	Expenditure	Profit	Expenditure	Profit
2007	17.8	16.20%	16.5	18.50%	26	20.50%
2007	19.6	24.50%	17.4	18%	27.5	30%
2009	21	19%	20.5	21.80%	24.3	28.40%
2010	20.4	34.80%	23	25%	22.5	22%
2011	21.5	30%	22.6	28%	25.4	21.50%
2012	23.2	31.50%	24.8	27.50%	29.75	20%

151. What is the income (in ?)of Company C in the year 2011 ?
(1) 25.461 crore (2) 19.312crore (3) 30.861 crore (4) 32.612 crore (5) None of these

152. What is the difference between the profits of Company A and Company B in the year 201.2?
(1) ` 42.4 1akh (2) ` 48.8 1akh (3) ` 51.4 lakh (4) ` 56.2 1akh (5) ` 57.5 1akh

153. The expenditure of Company A in the year 2007 and 2012 together is approximately what per cent of the expenditure of Company C in the year 2008 and 2010 together?
(1) 64% (2) 72% (3) 78% (4) 82% (5) 86%

154. The percentage profit of Company C in the year 2009 is approximately what per cent more or less than the percentage profit of Company A in the year 2007?
(1) 72% (2) 75% (3) 78% (4) 81% (5) 89%

155. The income of Company B in the year 2010 is approximately what per cent of the expenditure of Company A in the year 2009?
(1) 112% (2) 123% (3) 137% (4) 142% (5) 148%

Directions (Q. 156-160): Six companies A, B, C, D, E and F produce items which come in three models I_1, I_2 and I_3. The following table shows the total items produced by these companies and the ratios of I_1, I_2 and I_3 among them.

Company	Total items	$I_1 : I_2 : I_3$
A	80370	25 : 23 : 9
B	61050	19 : 15 : 21
C	77490	23 : 18 : 22
D	61880	21 : 23 : 24
E	73130	25 : 24 : 22
F	93160	3 : 5 : 9

156. What is the total number of items I_1 produced by Company A and B together?
(1) 51280 (2) 53410 (3) 54720 (4) 55880 (5) 56340

157. What is the difference between the total number of items I_1 and I_3 produced by Company E?
(1) 3090 (2) 3140 (3) 3270 (4) 3320 (5) 3450

158. The total number of items I_2 produced by Company A is approximately what per cent of the total number of items I_1 produced by it?
(1) 23% (2) 67.64% (3) 92% (4) 108.7% (5) None of these

159. The total number of items I_1 produced by Company D is approximately what per cent more/less than the total number of items I_1 produced by Company F?
(1) 13.5% (2) 16.25% (3) 17.75% (4) 19.5% (5) 24%

160. What is the total number of items I_2 produced by all six companies together?
(1) 142580 (2) 144270 (3) 146820 (4) 148360 (5) None of these

Directions (Q. 161-165): The following table shows the percentage of marks obtained by six students in five different subjects. Answer the following questions based on this table.

Students	Physics (Out of 75)	Chemistry (Out of 75)	Maths (Out of 200)	Hindi (Out of 50)	English (Out of 150)
A	84%	42%	67%	44%	74%
B	68%	64%	49%	74%	52%
C	72%	54%	58%	68%	64%
D	48%	82%	63%	48%	70%
E	70%	78%	71%	56%	78%
F	56%	66%	55%	76%	66%

161. What is the average marks scored by all the students in Physics?
(1) 49.75 (2) 52.25 (3) 54 (4) 57.5 (5) 47.5

162. What is the total marks scored by Student F in all the subjects together?
(1) 332 (2) 334.5 (3) 335 (4) 336.5 (5) 338.5

163. What is the overall percentage of marks scored by Student B? (Answer in approximate value.)
(1) 53% (2) 57% (3) 61% (4) 63% (5) 51%

164. The marks scored by Student C in Physics is approximately what per cent of the marks scored by him in English?
(1) 56% (2) 60% (3) 62% (4) 67% (5) 69%

165. What is the difference between the total marks obtained by Student D in Chemistry and English and that obtained by Student F in the same subject?
(1) 14.5 (2) 16 (3) 18 (4) 19.5 (5) 16.5

Directions (166-170) : Study the following table carefully to answer these questions.

Number of students enrolled in five colleges over the years

College → Year ↓	A	B	C	D	E
2007	550	430	600	420	300
2008	400	450	300	620	520
2009	1000	900	700	650	520
2010	850	450	720	650	420
2011	800	650	850	420	850

166. In the year 2009, 80% of the students enrolled in College A appeared in a competitive examination. Out of these, 60% students passed. How many students passed the examination?
(1) 320 (2) 455 (3) 535 (4) 480 (5) None of these

167. In 2008, from all the colleges together overall 70% of the students got enrolled for computer course. How many students got enrolled for the course?
(1) 1702 (2) 1593 (3) 1603 (4) 1105 (5) None of these

168. What is the ratio of the average number of students enrolled with all the colleges together during the year 2009 to that during 2010?
(1) 375 : 364 (2) 364 : 365 (3) 377 : 309 (4) 389 : 367 (5) None of these

169. The number of students enrolled in College A in the year 2009 is approximately what per cent more than the number of students enrolled in College B in the year 2011 ?
(1) 65% (2) 70% (3) 35% (4) 54% (5) None of these

170. In 2010, from all colleges together 10% of the students enrolled went abroad. How many students went abroad?
(1) 409 (2) 429 (3) 609 (4) 509 (5) 309

Directions (Q. 171-175) : Study the table carefully to answer the questions that follow:

The table shows the percentage of 25000 people who are involved in different professions, and the percentage of female and male professionals among them.

Professions	Percentage of people	Percentage of females	Percentage of males
Banking	20	40	-
Law	15	20	-
Teaching	30	-	40
Engineering	25	-	30
Medical	10	60	-

171. The total number of people in the Teaching profession is what percentage of the total number of people in the Medical profession?
(1) 175% (2) 225% (3) 325% (4) 140% (5) 300%

172. What is the ratio of the total number of males in the Medical and Banking professions together to the total number of females in the same profession together?
(1) 3:5 (2) 7:5 (3) 8:7 (4) 7:8 (5) None of these

173. The females in the Engineering profession are approximately what per cent of the males in the Banking profession?
(1) 135% (2) 125% (3) 146% (4) 153% (5) None of these

174. What is the ratio of the total number of males in the Banking and Medical professions together to the total number of females in the Law and Teaching professions together?
(1) 4:5 (2) 3:7 (3) 16:21 (4) 21:16 (5) 21:4

175. The total number of females in the Engineering profession is approximately what percentage more than the number of males in the Law profession?
(1) 46% (2) 51% (3) 37% (4) 54% (5) None of these

Directions (Q. 176-180) : Study the table carefully to answer the questions that follow:

Monthly Bill (in rupees) landline phone, electricity of laundry and mobile phone paid, by three different people in five months

Month	Monthly Bills											
	Landline Phone			Electricity			Laundry			Mobile Phone		
	Ravi	Dev	Manu	Ravi	Dev	Manu	Ravi	Dev	Manu	Ravi	Dev	Manu
March	234	190	113	145	245	315	93	323	65	144	234	345
April	124	234	321	270	220	135	151	134	35	164	221	325
May	156	432	211	86	150	98	232	442	132	143	532	332
June	87	123	124	124	150	116	213	324	184	245	134	125
July	221	104	156	235	103	131	143	532	143	324	432	543

176. What is the total amount of bill paid by Dev in the month of June for all the four commodities?
(1) ` 608 (2) ` 763 (3) ` 731 (4) ` 683 (5) ` 674

177. What is the average electricity bill paid by Manu over all the five months together?
(1) ` 183 (2) ` 149 (3) ` 159 (4) ` 178 (5) ` 164

178. What is the difference between the mobile phone bill paid by Ravi in the month of May and the laundry bill paid by Dev in the month of March?
(1) ` 180 (2) ` 176 (3) ` 190 (4) ` 167 (5) ` 196

179. In which months respectively did Manu pay the second highest mobile phone bill and the lowest electricity bill?
(1) April and June (2) April and May (3) March and June
(4) March and May (5) July and May

180. What is the ratio of the electricity bill paid by Manu in the month of April to the mobile phone bill paid by Ravi in the month of June?
(1) 27:49 (2) 27:65 (3) 34:49 (4) 135:184 (5) 13:24

Directions (Q. 181-185) : Study the following table carefully and answer the questions that follow:

Station	Arrival time	Departure time	Halt time (in minutes)	Distance travelled from origin (in km)	No. of passengers boarding the trainat each station
Dadar	Starting	12.05 am	___	0 km	437
Vasai Road	12.53 am	12.56 am	3 minutes	42 km	378
Surat	4.15 am	4.20 am	5 minutes	257 km	458
Vadodara	6.05 am	6.10 am	5 minutes	386 km	239
Anand Jn	6.43 am	6.45 am	2 minutes	422 km	290
Nadiad Jn	7.01 am	7.03 am	2 minutes	440 km	132
Ahmedabad	8.00 am	8.20 am	20 minutes	486 km	306
Bhuj	5.40 pm	Ending point	___	977 km	None

181. What is the distance travelled by the train from Surat to Nadiad Jn?
(1) 176km (2) 188 km (3) 183 km (4) 193 km (5) 159 km

182. How much time does the train take to reach Ahmedabad after departing from Anand Jn (including the halt time) ?
(1) 1 hr 59 min (2) 1 hr 17 min (3) 1 hr 47 min (4) 1 hr 45 min (5) 1 hr 15 min

183. What is the ratio of the number of passengers boarding from Vasai Road to that from Ahmedabad in the train ?
(1) 21:17 (2) 13:9 (3) 21:19 (4) 15:13 (5) 13:15

184. If the halt time (stopping time) of the train at Vadodara is decreased by 2 minutes and increased by 23 minutes at Ahmedabad, at what time will the train reach Bhuj?
(1) 6.10am (2) 6.01 pm (3) 6.05 am (4) 6.50 pm (5) 6.07 pm

185. The distance between which two stations is the second lowest?
(1) Nadiad Jn to Ahmedabad (2) Anand Jn to Nadiad Jn (3) Dadar to Vasai Road
(4) Anand Jn to Vadodara (5) Vasai Road to Surat

Directions (Q. 186-190) : Study the table carefully to answer the questions that follow.

Maximum and Minimum temperature (in degree Celsius) recorded on 1st day of each month of five different cities

Month	Temperature									
	Bhuj		Sydney		Ontario		Kabul		Beijing	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1st September	24	14	12	2	5	1	34	23	12	9
1st October	35	21	5	-1	15	6	37	30	9	3
1st November	19	8	11	3	4	0	45	36	15	1
1st December	9	2	-5	-9	-11	-7	31	23	2	-3
1st January	-4	-7	-11	-13	-14	-19	20	11	5	-13

186. What is the difference between the maximum temperature of Ontario on 1st November and the minimum temperature of Bhuj on 1st January?
(1) 3°C (2) 18°C (3) 15°C (4) 9°C (5) 11°C

187. In which month respectively is the maximum temperature of Kabul the second highest and the minimum temperature of Sydney the highest?
(1) 1st October and 1st January (2) 1st October and 1st November
(3) 1st December and 1st January (4) 1st September and 1st January
(5) 1st December and 1st September

188. In which month (on 1st day) is the difference between maximum temperature and minimum temperature of Bhuj the second highest?
(1) 1st September (2) 1st October (3) 1st November
(4) 1st December (5) 1st January

189. What is the average maximum temperature of Beijing over all the months together?
(1) 8.4°C (2) 9.6°C (3) 7.6°C (4) 9.2°C (5) 8.6°C

190. What is the ratio of the minimum temperature of Beijing on 1st September to the maximum temperature of Ontario on 1st October?
(1) 3:4 (2) 3:5 (3) 4:5 (4) 1:5 (5) 1:4

Directions (Q. 191-195): Study the following table carefully and answer the questions given.

Number of 5 types of cars (Swift, SX4, Ertiga, Zen, Echo) manufactured (in thousand) by Maruti over the years

Year	Types of Car				
	Swift	SX4	Ertiga	Zen	Echo
2007	250	200	128	140	115
2008	200	230	150	155	120
2009	230	225	142	160	135
2010	245	210	170	175	125
2011	260	135	180	185	130
2012	275	155	230	220	120

191. Which type of cars manufactured by Maruti during 2007 to 2012 is the maximum?
(1) Swift (2) Zen (3) Echo (4) Ertiga (5) SX4

192. What was the percentage increase in the production of Swift from 2007 to 2012?
(1) 10% (2) 12% (3) 16% (4) 22% (5) 8%

193. Which type of cars registered a continuous increase in the production over the years?
(1) Swift (2) Zen (3) SX4 (4) Ertiga (5) Echo

194. The production of Echo in the year 2011 was what per cent of the production of SX4 in the year 2010?
(1) 67.21% (2) 57.97% (3) 59% (4) 61.9% (5) 65.4%

195. What was the percentage increase in the production of Zen from 2008 to 2010?
(1) 7.8% (2) 10.8% (3) 12.9% (4) 13.5% (5) 14.2%

Directions (Q. 196-200): Study the following table carefully and answer the questions given below:

The table shows the number of people working in various departments of various organisations.

Department	Organisation				
	P	Q	R	S	T
Production	1050	1015	976	888	1004
IT	1017	960	786	1025	963
Accounts	1382	1384	1275	1300	1290
Legal	786	745	801	800	735
Finance	1542	1545	1550	1570	1580
Marketing	48	54	36	30	53

196. The total number of employees working in the Marketing Departments is approximately what per cent of the total number of employees working in the Production Departments of all the organisations together?
(1) 4.5% (2) 7% (3) 8.5% (4) 10% (5) 12%

197. What is the approximate difference between the average number of people working in the Accounts Departments and that in the Finance Departments of all the organisations together?
(1) 331 (2) 231 (3) 430 (4) 546 (5) 210

198. What is the ratio of the total number of employees working in Organisation P to the total number of, employees working in Organisation T?
(1) 45 : 233 (2) 225 : 233 (3) 125 : 233 (4) 233 : 225 (5) 625 : 233

199. What is the total number of employees working in all departments of all the organisations together?
(1) 28910 (2) 27690 (3) 28901 (4) 26960 (5) 28190

200. The number of people working in the IT Department of Organisation Q is approximately what per cent of the total number of employees working in Organisation Q?
(1) 27% (2) 15% (3) 17% (4) 12% (5) 29%

Directions(Q. 201-205): Study the following table carefully to answer the questions that follow.

Total number of students studying in various colleges over the years

Year	College				
	A	B	C	D	E
2007	860	890	780	900	840
2008	910	980	820	970	880
2009	930	1040	910	908	990
2010	990	1000	980	940	1000
2011	940	940	980	960	1050
2012	980	960	1020	920	1120

201. What is the ratio of the number of students studying in College A to the number of students studying in College E in the year 2012?
(1) 15 : 14 (2) 7 : 8 (3) 9 : 8 (4) 10 : 11 (5) None of these

202. What is the difference between the average number of students studying in College A over the given period and the average number of students studying in College C over the same period?
(1) 23 (2) 128 (3) 120 (4) 32 (5) 20

203. What is the difference between the total number of students studying in College B over the given period and the total number of students studying in College D over the same period?
(1) 218 (2) 35 (3) 32 (4) 212 (5) None of these

204. What is-the average number of students studying in College E over the given period?
(1) 928 (2) 930 (3) 933 (4) 941 (5) 980

205. The number of students studying in College C in the year 2010 is approximately what per cent of the total number of students studying in various colleges in that year?
(1) 20 (2) 23 (3) 17 (4) 25 (5) None of these

SHORT ANSWER

1. (2)	2. (3)	3. (5)	4. (2)	5. (4)	6. (5)	7. (1)	8. (1)
9. (5)	10. (3)	11. (1)	12. (2)	13. (5)	14. (4)	15. (3)	16. (3)
17. (4)	18. (2)	19. (5)	20. (4)	21. (4)	22. (2)	23. (3)	24. (1)
25. (5)	26. (3)	27. (1)	28. (5)	29. (4)	30. (4)	31. (2)	32. (4)
33. (5)	34. (4)	35. (3)	36. (3)	37. (3)	38. (4)	39. (3)	40. (1)
41. (3)	42. (2)	43. (5)	44. (4)	45. (1)	46. (3)	47. (5)	48. (1)
49. (4)	50. (5)	51. (3)	52. (4)	53. (1)	54. (3)	55. (2)	56. (4)
57. (2)	58. (2)	59. (3)	60. (3)	61. (5)	62. (3)	63. (1)	64. (3)
65. (4)	66. (3)	67. (2)	68. (3)	69. (4)	70. (5)	71. (1)	72. (2)
73. (5)	74. (2)	75. (2)	76. (2)	77. (2)	78. (1)	79. (2)	80. (4)
81. (1)	82. (5)	83. (2)	84. (2)	85. (5)	86. (1)	87. (4)	88. (5)
89. (1)	90. (3)	91. (4)	92. (3)	93. (3)	94. (2)	95. (5)	96. (2)
97. (3)	98. (2)	99. (2)	100. (5)	101. (5)	102. (2)	103. (5)	104. (5)
105. (3)	106. (2)	107. (3)	108. (1)	109. (5)	110. (4)	111. (2)	112. (4)
113. (3)	114. (5)	115. (4)	116. (2)	117. (1)	118. (2)	119. (3)	120. (5)
121. (2)	122. (3)	123. (3)	124. (4)	125. (4)	126. (2)	127. (4)	128. (5)
129. (1)	130. (1)	131. (4)	132. (2)	133. (1)	134. (3)	135. (3)	136. (4)
137. (3)	138. (5)	139. (2)	140. (5)	141. (1)	142. (2)	143. (3)	144. (3)
145. (2)	146. (3)	147. (2)	148. (4)	149. (3)	150. (5)	151. (3)	152. (2)
153. (4)	154. (2)	155. (3)	156. (5)	157. (1)	158. (3)	159. (2)	160. (2)
161. (1)	162. (5)	163. (2)	164. (1)	165. (3)	166. (4)	167. (3)	168. (3)
169. (4)	170. (5)	171. (5)	172. (3)	173. (3)	174. (3)	175. (1)	176. (3)
177. (3)	178. (1)	179. (4)	180. (1)	181. (3)	182. (5)	183. (1)	184. (2)
185. (3)	186. (5)	187. (1)	188. (3)	189. (5)	190. (2)	191. (1)	192. (1)
193. (2)	194. (4)	195. (3)	196. (1)	197. (2)	198. (4)	199. (5)	200. (3)
201. (2)	202. (5)	203. (4)	204. (5)	205. (1)			

DETAIL - EXPLANATIONS

1. 2; $V_{Hindi} = \frac{55}{80} \times 100 = 68.75\%$

$S_{che} = \frac{25}{40} \times 100 = 62.5\%$

$\therefore$ Difference = 68.75 - 62.5 = 6.25%

2. 3; $Avg = \frac{65+48+57+55+64+60+70}{7}$

$= \frac{419}{7} \approx 60$

3. 5; Hindi = $\frac{51}{80}$ × 100 = 63.75%,

Eng = $\frac{48}{80}$ × 100 = 60%,

Maths = $\frac{93}{100}$ × 100 = 93%,

Phy = $\frac{28}{40}$ × 100 = 70%,

Chem = $\frac{27}{40}$ × 100 = 67.5%,

Bio = $\frac{31}{40}$ × 100 = 77.5%

4. 2; % Marks of 'R' = $\frac{(62+32)}{80+40} \times 100$

$= \frac{9400}{120} = 78.33\%$

% marks of 'Q' = $\frac{(48+27)}{80+40} \times 100$

$= \frac{7500}{120} = 62.5\%$

$\therefore$ Diff = 78.33 - 62.5 = 15.83% = 15.8%

5. 4; $Total_v$ = 55 + 70 + 81 + 30 + 28 + 33 = 297

Maximum marks = 80 + 80 + 100 + 40 + 40 + 40 = 380

$\therefore$ Reqd % = $\frac{297}{380}$ × 100 = 78.15 $\approx$ 78%

6. 5; Total failed in school C in 2008 = 354 - 258 = 96

Total appeared in school D in 2006 = 235

Total = 331

7. 1

8. 1; 11 : 4

9. 5; $\frac{435}{546} \times 100 = 80\%$

10. 3; $\frac{435-346}{346} \times 100 = 25.7\%$

11. 1; Avg = $\frac{3.34+5.83+1.69}{3} = \frac{10.86}{3}$ = 3.62 lac

12. 2; $\frac{2.79}{9.45} = \frac{31}{105} = 31:105$

13. 5; Reqd % $\frac{9.45-8.42}{8.42} \times 100 = 12.23\%$

14. 4

15. 3; Reqd % = $\frac{1.44+7.84}{5.53} \times 100$

$= \frac{9.28}{5.53} \times 100 = 167.82\%$

16. 3; Total students who appeared = 3895

Total student who qualified = 1710

$\therefore$ Diff = 3895 - 1710 = 2185

17. 4; 2005 = $\frac{280}{760} \times 100$ = 36.84%

2006 $\rightarrow \frac{225}{530} \times 100 = 42.45\%$

2007 $\rightarrow \frac{480 \times 100}{925} = 51.89\%$

2008 $\rightarrow \frac{345 \times 100}{690} = 50\%$

2009 $\rightarrow \frac{375 \times 100}{650} = 57.69\%$

2010 $\rightarrow \frac{375 \times 100}{725} = 51.72\%$

18. 2; Total qualified = 275 + 215 + 525 + 480 + 480 + 390 = 2365

Total appeared = 840 + 625 + 910 + 825 + 890 + 595 = 4685

$\therefore$ Reqd % = $\frac{2365}{4685} \times 100 = 50.48\%$

19. 5; $S_1 = \frac{480 \times 100}{890} = 53.93\%$,

$S_2 = \frac{450 \times 100}{815} = 55.21\%$

$S_3 = \frac{410 \times 100}{720} = 56.94\%$

$S_4 = \frac{250 \times 100}{590} = 42.37\%$

$S_5 = \frac{280 \times 100}{680} = 41.17\%$

$S_6 = \frac{375 \times 100}{650} = 57.69\%$

20. 4; $Q_{2009} = 250, \quad Q_{2010} = 540$

$\therefore$ % rise $= \frac{540 - 250}{250} \times 100 = \frac{290 \times 100}{250}$

$= 29 \times 4 = 116\%$

21. 4; Total $= 58.75 \times 0.80 + 78.75 \times 0.80 + 81.25 \times 0.80 + 82.5 \times 0.80 + 77.5 \times 0.80 + 76.25 \times 0.80$

$= 47 + 63 + 65 + 66 + 62 + 61 = 364$

22. 2; Total $P_5 = 0.80 \times (77.5 + 83.75 + 55 + 58.75 + 67.5 + 73.75 + 81.25)$

$= 0.80 \times 497.5 = 398$

$\therefore$ Avg $= \frac{398}{7} = 56.857 = 56.85$

23. 3; Score of E in $P_1 = 80 \times \frac{85}{100} = 68$

Score of D in $P_1 = 80 \times \frac{52.5}{100} = 42$

$\therefore$ Reqd% $= \frac{68}{42} \times 100 = 161.9\%$

24. 1; Total marks of C $=$

$\frac{80}{100}\{68.75 + 71.25 + 58.75 + 83.75 + 55 + 67.5\}$

$= 80 \times \frac{405}{100} = 324$

$\therefore$ Reqd percentage $= \frac{324}{480} \times 100 = 67.5\%$

25. 5; Avg of percentage of marks in P_2

$= \frac{78.75 + 60 + 71.25 + 76.25 + 78.75 + 90 + 72.5}{7}$

$= \frac{527.5}{7}$

Avg of percentage of marks in P_5 $=$

$\frac{77.5 + 83.75 + 55 + 58.75 + 67.5 + 73.75 + 81.25}{7}$

$= \frac{497.5}{7}$

$\therefore$ Avg $= \frac{527.5 + 497.5}{7 \times 2} = \frac{1025}{14} = 73.21$

26. 3; Avg $= \frac{210 + 204 + 231 + 231}{4}$

$= \frac{876}{4} = 219$

27. 1; Total number of girls $= 70 + 117 + 54 + 129 + 136 + 176 = 682$

28. 5; Diff $= 225 - 225 = 0$

29. 4; Let the total number of students be x.

$\therefore$ Boys $= \frac{44x}{100}$ and girls $= \frac{56x}{100}$

Diff $= \frac{12x}{100} = 30 \qquad \therefore x = \frac{3000}{12} = 250$

$\therefore$ Boys $= \frac{44}{100} \times 250 = 110$

Similarly,

Total students $= \frac{132 \times 100}{40} = 330$

Girls $= \frac{30 \times 330}{100} = 99$

$\therefore$ Ratio $= \frac{110}{99} = \frac{10}{9}$

30. 4; Students from $F_{1986} = 375$

Students from $C_{1986} = 250$

% $= \frac{375}{250} \times 100 = 150\%$

31. 2; $\frac{1945}{5} = 389$

32. 4

33. 5; $\frac{1102}{2142} \times 100 = 51.44\%$

34. 4; $1480 \times \frac{65}{100} = 962$

35. 3; $1072 \times \frac{3}{4} = 804$

36. 3

37. 3; $I_1(2009)_{sold} = 40 \times \frac{72}{100} \times \frac{5}{9} = 16$ lakh

$I_1(2010)_{sold} = 50 \times \frac{48}{100} \times \frac{5}{8} = 15$ lakh

$\therefore$ Total $= 16 + 15 = 31$ lakh

38. 4; % $Sale_B$ = 56%; % $Sale_E$ = 40%

$\therefore$ Reqd % = $\frac{56}{40} \times 100 = 140\%$

39. 3; Company D $I_{2\ \text{Produced-2009}}$

$= 40 \times \frac{5}{8} = 25$ lakh

Sold $I_2 = 40 \times \frac{72}{100} \times \frac{4}{9} = 12.8$ lakh

$\therefore$ Unsold_{2009} = 25 - 12.8 = 12.2 lakh,

$I_{2\ \text{Produced-2010}}$ = 50 × $\frac{3}{5}$ = 30 lakh

Sold = $50 \times \frac{48}{100} \times \frac{3}{8} = 9$ lakh

$\therefore$ $I_{2\ \text{unsold-2010}}$ = 30 - 9 = 21 lakh

$\therefore$ Total = 21 + 12.2 = 33.2 lakh

40. 1; $I_{1\ A\ \text{in}\ 2010} = 48 \times \frac{65}{100} \times \frac{7}{13} = 16.8$ lakh

$I_{1\ E\ \text{in}\ 2009} = 25 \times \frac{50}{100} \times \frac{2}{5} = 5$ lakh

Reqd % = $\frac{16.8}{5} \times 100 = 336\%$

41. 3: $\text{Total}_{\text{sold}}$ = 45.5 × $\frac{4}{7}$ + 48.6 × $\frac{5}{9}$ + 40 × $\frac{2}{5}$ +

55 × $\frac{3}{5}$ + 64.4 × $\frac{3}{7}$ + 68 × $\frac{5}{8}$

= 26 + 27 + 16 + 33 + 27.6 + 42.5

= 172.1 thousand

42. 2

43. 5; Sold_{2009} = 34 thousand

Unsold_{2006} = 20 thousand

Reqd% = $\frac{34}{20}$ xl00 = 170%

44. 4; Unsold $C_{2O08} = 51x\frac{8}{17}$ = 24 thousand

Sold $B_{20l0} = 85x\frac{8}{17} = 40$ thousand

% less = $\frac{40-24}{40} \times 100 = \frac{1600}{40} = 40\%$

45. 1; Sold = 30 + 24.8 + 28.2 + 34 + 24.2 + 37.26
= 178.46 thousand

Unsold = 20 + 27.9 + 28.2 + 17 + 36.3 +
24.84 = 154.24 thousand

$\therefore$ Diff = 178.46 - 154.25 = 24.22 thousand

46. 3; Overall by B in all subjects

% = $\frac{399}{600} \times 100 = 66.5\%$

47. 5; Ratio = $\frac{360}{435} = \frac{24}{99}$ ie 24 : 29

48. 1; Average = $\frac{441}{6} = 73.5$

49. 4; Average marks = $\frac{633}{6} = 105.5$

$\therefore$ % average marks = $\frac{105.5}{150} \times 100 \approx 70.3\%$

50. 5;

Total_A = 84 + 66 + 73 + 61 + 24 + 52 = 360

Total_E = 108 + 78 + 78 + 70 + 39 + 48 = 421

$\therefore$ Reqd % = $\frac{421-360}{360} \times 100 = \frac{6100}{360} \approx 17\%$

51. 3; % rise = $\frac{18.8-16}{16} \times 100 = \frac{280}{16}$

= 17.5%

52. 4; Sale_{2008} = 860000 × $\frac{90.6}{100}$ = 779160

$\text{Sale}_{2009} = \frac{1120000 \times 81}{100} = 988200$

$\therefore$ Reqd % = $\frac{988200 - 779160}{779160} \times 100 = 26.8\%$

53. 1; Total rejected

$$= \frac{\{12.8 \times 3.8 + 13.2 \times 5.7 + 16 \times 2.4 + 12.4 \times 9.2 + 17.5 \times 4.1 + 8.6 \times 4.7 + 14.8 \times 3.6\}}{100}$$

$$= \frac{48.64 + 75.24 + 38.4 + 114.08 + 71.75 + 40.42 + 53.28}{100}$$

$$= \frac{441.81}{100} = 441810$$

54. 3; Reqd % = $\frac{9318210}{11680000} \times 100$

= 79.778 = 80%

55. 2; Percentage rise = A = 28.125%,
B = 15.15%, C = 17.5 %, D = 30.64%,

E = 17.14%, F = 41.86%, G = 18.2%
So Company B has maximum rise.

56. 4; Total appeared = 4730, Total passed = 2640,
$\therefore$ Difference = 4730 - 2640 = 2090

57. 2; $\text{Avg} = \frac{472+324+480+840}{4}$

$= \frac{2116}{4} = 529$

58. 2; $A = \frac{496}{850} \times 100 = 58.35\%$,

$B = \frac{315}{600} \times 100 = 52.5\%$

$C = \frac{464}{740} \times 100 = 62.7\%$

$D = \frac{780}{1165} \times 100 = 66.95\%$

59. 3; $A_{2003} = 360$, $A_{2004} = 504$

$\therefore$ % rise $= \frac{(504-360)}{360} \times 100 = 40\%$

60. 3; Total passed = 2564
Total appeared = 4275

$\therefore$ Reqd % $= \frac{2564}{4275} \times 100 \approx 60\%$

61. 5; $T_B = 216000 \times \frac{22.6}{100} = 48816$

$T_C = 264000 \times \frac{14.8}{100} = 39072$

Difference = 48816 – 39072 = 9744

62. 3; $\text{Income}_C = \frac{72000 \times 100}{24} = 300000$

$\text{Income}_D = \frac{86400 \times 100}{18} = 480000$

$\therefore$ Reqd % $= \frac{300000}{480000} \times 100 = 62.5\%$

63. 1; $E_{Ent} = 8.6\%$, $F_{trn} = 16\%$

$\therefore$ Reqd % $= \frac{8.6}{16} \times 100 = 53.75\%$

64. 3; Reqd amount = (16.3 + 18.6)% of 420000
= 146580

65. 4; $A_{Rent} = 40000 \times \frac{15}{100} = 6000$

$D_{Clothes} = 36000 \times \frac{12}{100} = 4320$

$\therefore$ Reqd % $= \frac{(6000-4320)}{4320} \times 100 = \frac{168000}{4320} =$ 38.88%

66. 3; Total females $= \frac{1173}{3} \times 1 + \frac{1547}{17} \times 9 + \frac{1305}{5} \times 2 +$

$\frac{1488}{16} \times 9 + \frac{1335}{15} \times 7 + \frac{1199}{11} \times 6$

= 391 + 819 + 522 + 837 + 623 + 654 = 3846

$\therefore$ Average $= \frac{3846}{6} = 641$

67. 2; $\therefore$ Reqd % $= \frac{720}{820} \times 100 = 87.8 \approx 88\%$

68. 3; Total $\text{Male}_{SONY} = 3690$
$\therefore$ Average = 615
$\Rightarrow \text{Star}_D = 1236$

$\therefore$ Reqd % $= \frac{615}{1236} \times 100 = 49.75 \approx 50\%$

69. 4; $\text{Male}_c = 783 \quad \Rightarrow \text{Female}_F = 660$

$\therefore$ Reqd% $= \frac{783-660}{660} \times 100 = 18.636\%$

70. 5; $\text{Male}_{ZEE} = 4201$
$\Rightarrow \text{Female}_{ZEE} = 3846$
$\therefore$ Difference = 4201 - 3846 = 355

71. 1; Total $= \frac{7210}{5} \times 3 + \frac{4800}{16} \times 9$

$+ \frac{5670}{9} \times 5 + \frac{6400}{16} \times 11 + \frac{7200}{18} \times 11 + \frac{7080}{12} \times 7$

= 4326 + 2700 + 3150 + 4400 + 4400 + 4130 = 23106

$\therefore$ Average $= \frac{23106}{6} = 3851$

72. 2; Appeared girls $= \frac{6400}{16} \times 5 = 2000$

Number of girls passed from $S_4 = 975$

$\therefore$ Reqd % $= \frac{975}{2000} \times 100 = 48.75\%$

73. 5; Total number of boys appeared from all cities together = 23106
Total number of boys passed from all cities together = 3058 + 2022 + 2537 + 3377 + 2880 + 3037= 16911
$\therefore$ Total number of boys failed from all cities = Number of boys appeared from all cities - number of boys passed from all cities
= 23106 - 16911 = 6195

74. 2; Girls appeared $= \frac{7210}{5} \times 2 + \frac{4800}{16} \times 7$

$+\frac{5670}{9}\times 4+\frac{5670}{9}\times 4+\frac{6400}{16}\times 5+\frac{7200}{18}\times 7+\frac{7080}{12}\times 5$

$= 2884 + 2100 + 2520 + 2000 + 2800 + 2950$

$= 15254$

Girls Passed = 1268 + 1146 + 1432 + 975 + 1224 + 1565 = 7610

$\therefore$ Reqd % = $\frac{7610}{15254}\times 100 = 49.88 \approx 50\%$

75. 2; Total number of students passed from City S_2

$= 4800 \times \frac{66}{100} = 3168$

Total number of girls passed from City S_2 = 1146

$\therefore$ Total numbers of boys passed from City S_2

= 3168 - 1146 = 2022

$\therefore$ Reqd % = $\frac{2022-1146}{1146}\times 100$

$= \frac{876\times 100}{1146} = 76.43\% \approx 76.5\%$

76. 2; % rise = $\frac{1680-800}{800}\times 100 = \frac{880}{800}\times 100\%$ = 110%

= 110%

77. 2; In year 1995 price of 3kg wheat

$= \frac{700}{100}\times 3 = 21$

Groundnut (1 kg) = $\frac{1200}{100} = 12$

Percentage difference

$= \frac{21-12}{12}\times 100 = \frac{9}{12}\times 100 = 75\%$

78. 1; Average

$= \frac{200+270+365+460+640}{5} = \frac{1935}{5} = 387$

79. 2; $\text{Average}_{\text{sugar}} = \frac{15000}{5\times 100} = 30$

Price of suger is highest in 2010.

So, price of suger_{2010} = 45

Percentage = $\frac{30}{45}\times 100 = 66.66\%$

80. 4;

$1990-1995 \rightarrow \frac{5500-4200}{4200}\times 100 = 30.95\%$

$1995-2000 \rightarrow \frac{6400-5500}{5500}\times 100 = 16.36\%$

$2000-2005 \rightarrow \frac{8000-6400}{6400}\times 100 = 25\%$

$2005-2010 \rightarrow \frac{11000-8000}{8000}\times 100 = 37.5\%$

81. 1; Let the total population of City A be 'x'.

$\therefore x\times\frac{24}{100} = 15840$

$\therefore x = \frac{1584000}{24} = 66000$

$\therefore$ 16% of 66000 = 10560

82. 5; 0 < Age $\leq$ 13 = 18%

and 13 < Age $\leq$ 19 =15%

$\therefore$ Reqd% = $\frac{18}{15}\times 100 = 120\%$

83. 2; Total population of City C

$= 12000\times\frac{100}{15} = 80000$

Total population of City ,D

$= 12000\times\frac{100}{20} = 60000$

$\therefore$ Sum = 1.4 lakh

84. 2; Total population of City A

$= \frac{8640\times 100}{24} = 36000$

Total population of City B

$= \frac{10560\times 100}{22} = 48000$

$\therefore$ Ratio = $\frac{36000}{48000} = \frac{3}{4} = 3:4$

85. 5; Population of City B in age group $_{(0-13)}$

$= 48000\times\frac{16}{100} = 7680$

Population of City - E in age group$_{(0-13)}$

$= 65000\times\frac{18}{100} = 11700$

$\therefore$ Reqd% = $\frac{(11700-7680)}{7680}\times 100$

$= \frac{4020}{7680}\times 100 = 52.34\%$

86. 1; For Commerce, M : F = 53 : 47

$\therefore$ Number of Females = $\frac{47\times 1272}{53} = 1128$

$\therefore$ Total students in Commerce = 1272 + 1128 = 2400

Arts : Science : Commerce = 3 : 5 : 4

$\therefore$ Number of students in Arts = $2400\times\frac{3}{4}$ = 1800

87. 4; For Arts stream, M : F = 31 : 14

$\therefore$ Females = $\frac{1240}{31}\times 14 = 560$

$\therefore$ Total number of students in Arts = 1800

∴ Arts : Science : Commerce..
2 : 4 : 5

∴ Science = $\frac{1800}{2} \times 4 = 3600$

∴ Commerce = 4500

∴ Difference = 4500 - 3600 = 900

88. 5; Ratio of the numbers of students passed in streams Arts, Science and Commerce in City F = 2 : 4 : 3

∴ Reqd % = $\frac{9}{4} \times 100 = 225\%$

89. 1; In Arts, M : F = 34 : 16

∴ Number of Males = $\frac{34}{16} \times 384 = 816$

∴ Total number of students in Arts stream in City C
= 816 + 384 = 1200

So, total number of students passed from, City C
= 7 × 1200 = 8400

∴ Total number of students in Commerce

= 8400 × $\frac{2}{7}$ = 2400

∴ Number of Males passed in Commerce

= 2400 × $\frac{31}{60}$ = 1240

∴ Reqd % = $\frac{1240}{8400} \times 100 = 14.76\%$

90. 3; M : F = 16 : 11

∴ Reqd % = $\frac{(16-11)}{16} \times 100 = \frac{500}{16}$ = 31.25% less

91. 4; $Total_A$ = 290, Total marks = 500

∴ Reqd% = $\frac{290}{500} \times 100 = 58\%$

92. 3; Average = $\frac{438}{6}$ = 73

93. 3; Ratio = $\frac{324}{333} = \frac{36}{37}$ = 36 : 37

94. 2; Only Student A and F didn't get 1st class.
A = 58% and F = 54.2%

95. 5; A + D = 38 + 42 = 80
B + C = 60 + 64 = 124

∴ Reqd % = $\frac{125}{80} \times 100 = 155\%$

96. 2; The total number of selected students in State B = 75 + 72 + 104 + 112 + 60 + 75 = 498

∴ Average = $\frac{498}{6}$ = 83

The total number of selected students in State D = 95 + 84 + 77 + 78 + 64 + 58 = 456

∴ Average = $\frac{456}{6}$ = 76

∴ Difference = 83 - 76 = 7

97. 3; Percentage of candidates passed in

State A = $\frac{780}{5600} \times$ 100 = 13.92%

Percentage of candidates passed in State B

= $\frac{480}{7500} \times 100 = 6.4\%$

Percentage of candidates passed in State C

= $\frac{800}{4800} \times 100 = 16.66\%$

Percentage of candidates passed in-State D

= $\frac{700}{7500} \times 100 = 9.33\%$

98. 2; Total number of students selected in State C
= 80 + 60 + 66 + *55*+ 52 + 60 = 373
Total number of students selected in State A
= 80 + 120 + 72 + 96 + 64 + 68 = 500

∴ Reqd % = $\frac{373}{500} \times 100 = 74.6\%$

99. 2; Percentage of selected candidates in State D

in 2006 → $\frac{95}{700} \times 100 = 13.57\%$

Percentage of selected candidates in State D

in 2007 → $\frac{84}{540} \times 100 = 15.5\%$

Percentage of selected candidates in State D

in 2008 → $\frac{77}{660} \times 100 = 11.6\%$

Percentage of selected candidates in State D

in 2009 → $\frac{78}{720} \times 100 = 10.83\%$

Percentage of selected candidates in State D

in 2010 → $\frac{64}{640} \times 100 = 10\%$

Percentage of selected candidates in State D

in 2011 → $\frac{58}{500} \times 100$ = 11.6%

100. 5; Total candidates passed in State A in 2006 = 780
Total candidates passed in State C in 2009 = 500

∴ Reqd %= $\frac{(780-500)}{500} \times 100 = \frac{280}{5} = 56\%$

101. 5; Premium model of Company D in the year 2009 = 10.4 thousand
Production of both the models by Company C in the year 2007 = 7.5 + 8.3 = 15.8

Required percentage = $\frac{10.4}{15.8} \times 100 = 66\%$

102. 2; Basic model produced by Company B in the year 2009 = 11.8
Basic model produced by Company B in the year 2008 = 14.8

$\therefore$ decrease % = $\frac{14.8 - 11.8}{14.8} \times 100$

$= \frac{3}{14.8} \times 100 = \frac{30}{148} \times 100$

$= \frac{3000}{148} = 20.27 \approx 20\%$

103. 5; Average = $\frac{2.5 \times 7.2 + 15.5 + 13.9 + 14.9}{5}$

= 10.8 = 10.8 × 1000 = 10800

104. 5; Company E_{2006} = 5.1 - 2.7 = 2.4
Company E_{2007} = 5.5 - 4.2 = 1.3
Company E_{2008} = 11.5 - 7.7 = 3.8
Company E_{2009} = 12.8 - 7.2 = 5.6
Company E_{2010} = 13.2 - 12.2 = 1
In the year 2009 the difference is the maximum.

105. 3

106. 2; Average = $\frac{396}{11}$ = 36

107. 3; $A_2 + B_2 + C_2$ = 28 + 46 + 97 = 171
Total runs scored by T_2 in 1st innings = 418

$\therefore$ Reqd % = $\frac{171}{418} \times 100 = 40.9 \approx 41\%$

108. 1; $G_1 + H_1 + I_1 + J_1 = 90$
$A_2 + B_2 + C_2 + D_2 = 270$
$\therefore$ Ratio = 1 : 3

109. 5; % rise = $\frac{42 - 15}{15} \times 100 = \frac{2700}{15} = 180\%$

110. 4; Strike rate of D_2 = $\frac{87}{116} \times 100 = 75$

Strike rate of E_2 = $\frac{56}{70} \times 100 = 80$

% Difference = $\frac{80 - 75}{75} \times 100 = \frac{500}{75} = 6.25\%$

111. 2; Number of Research Papers published by Neeta in Educon = 54
Number of Research Papers published by Vijay in Eduforms = 38

Reqd % = $\frac{54 - 38}{38} \times 100 = \frac{1600}{38}$

$= 42.10 \approx 42\%$

112. 4; Total number of Research Papers published by Anand, Vijay and Neeta together in Educon = 42 + 12 + 54 = 108
Total Number of Articles published by Mohan, Naidu and Ronit together in Edutrack
= 75 + 39 + 23 = 137
$\therefore$ Required difference = 137 - 108 = 29

113. 3; Research Papers and Articles together published by
Anand = 22+ 11 =33
Vijay = 38 + 25 = 63
Naidu = 57 + 35 = 92
Mohan = 39 + 48 = 87
Neeta = 44 + 32 =76
and Ronit = 11 + 18 = 29
Hence, third hightest published by Neeta.

114. 5; Average

$= \frac{17 + 6 + 12 + 22 + 28 + 29}{6} = \frac{114}{6}$ =19

115. 4; Total number of Reasearch Papers and Articles together published by Mohan in Edutrack = 42 + 75 = 117
Total Number of articles published by all six persons in New Era = 94

$\therefore$ Reqd % = $\frac{117}{94} \times 100 = 124\%$

116. 2; (Total_B) = 200 × 0.44 + 62 + 78 + 73 + 150 × 0.6 + 150 × 0.84 + 80 × 0.55 = 88 + 62 + 78 + 73 + 90 + 126 + 44 = 561

$\therefore$ % marks = $\frac{561}{880} \times 100 = 63.75\%$

117. l; $F_{Hindi} = 150 \times \frac{66}{100} = 99$

$B_{Maths} = 200 \times \frac{44}{100} = 88$

$\therefore$ Reqd % = $\frac{99}{88} \times 100 = 112.5\%$

118. 2; Average marks = $\frac{150}{6}$ {0.78 + 0.84 + 0.64 + 0.52 + 0.38 + 0.46}
= 25 × 3.62 = 90.5

119. 3; Total marks scored by Student A
= 200 × 0.72 + 77 + 61 + 67 + 150 × 0.72 + 150 × 0.78 + 80 × 0.4
= 144 + 77 + 61 + 67 + 108 + 117 + 32 = 606
Total marks scored by Student D
= 200 × 0.66 + 45 + 65 + 53 + 150 × 0.46 +

$150 \times 0.52 + 80 \times 0.3$
$= 132 + 45 + 65 + 53 + 69 + 78 + 24 = 466$

$\therefore$ Reqd% = $\frac{606-466}{466} \times 100$

$= \frac{14000}{466} = 30.04 \approx 30\%$

120. 5; The percentage marks scored by Student B in Chemistry = 78%
The percentage marks scored by Student C in Hindi = 48%

$\therefore$ Reqd % = $\frac{78}{48} \times 100 = 162.5\%$

121. 2; Average oil import from Iraq = $\frac{87}{5} = 17.4$

Average oil import from Venezuela = $\frac{42}{5} = 8.4$

$\therefore$ Ratio = $\frac{17.4}{8.4}$ = 29 : 14

122. 3; 2009-10 oil import from Nigeria is max with respect to its previous year.

123. 3;

Reqd = $\frac{21.2}{20.5 + 21.8 + 21.2 + 18.5 + 17.5} \times 100$

$= \frac{21.2}{99.5} \times 100 = 21.38 \approx 21\%$

124. 4; $\frac{0.9}{13.4} \times 100 + \frac{3}{14.8} \times 100 + \frac{0.3}{11.8} \times 100$

$+ \frac{6.3}{11.5} \times 100 = 6.4 + 20.27 + 2.54 + 54.78$

$\frac{6.4 + 20.27 + 2.54 + 54.78}{4} = 21\%$

125. 4; Average in 2011-12 = 19.36 million tonnes
Average in 2009-10 = 15.95 million tonnes.

$\therefore$ Reqd % = $\frac{19.36}{15.95} \times 100 = 121.37 \approx 121\%$

126. 2; Net profit of Dutch Bank last year

$= \frac{546}{1 - 0.152}$

$= \frac{546}{0.848} = 643.86$ crore

Net profit of CLSA last year

$= \frac{502}{0.78} = 643.589$ crore

Average net profit = $\frac{643.86 + 647.584}{2}$

= 643.72 crore = 644 crore

127. 4; Total net sales of all the organisations
= 7570 + 6186 + 7372 + 599 + 609 + 597
= 22933
Net sales of Dutch Bank = 7570

Reqd % = $\frac{7570}{22931} \times 100 = 33.009\% \approx 33\%$

128. 5; Reqd ratio = $\frac{546}{7570}$ → Dutch Bank

CLSA → $\frac{502}{6186}$

Morgan → $\frac{623}{7372}$

Motilal → $\frac{377}{599}$

HDFC Bank → $\frac{359}{609}$

Citi Bank → $\frac{388}{597}$

Thus, ratio of Citi Bank is the maximum.

129. 1; Dutch Bank

130. 1; Net sales of HDFC Bank = $\frac{609}{1 + 0.261}$

$= \frac{609}{1.261} = 482.95$ crore

Net sale of Citi Bank = $\frac{597}{1.24} = 481.45$ crore

$\therefore$ Average = $\frac{482.95 + 481.45}{2}$

= 482.2 crore $\approx$ 482

131. 4; Adult males in City A = $7.8 \times \frac{7}{13} \times \frac{62}{100}$

= 2.604 lakh

Adult females in City A = $7.8 \times \frac{6}{13} \times \frac{65}{100}$

= 2.34 lakh
$\therefore$ Difference = 2.604 - 2.34 = 0.264 lakh
= 26400

132. 2; Total adult males = $7.8 \times \frac{7}{13} \times \frac{62}{100}$

$+ 3.6 \times \frac{5}{9} \times \frac{70}{100} + 4.5 \times \frac{2}{5} \times \frac{68}{100} + 6.8 \times \frac{9}{17} \times \frac{72}{100} +$

$7.2 \times \frac{4}{9} \times \frac{65}{100} + 5.4 \times \frac{2}{3} \times \frac{75}{100} = 2.604 + 1.4 +$

1.224 + 2.592 + 2.08 + 2.7 = 12.6 lakh

$\therefore$ Average = $\frac{12.6}{6} = 2.1$ lakh

133. 1; Minor females in City C

$= 4.5 \times \frac{3}{5} \times \frac{36}{100} = 0.972$ lakh

Minor males in City F

$= 5.4 \times \frac{2}{3} \times \frac{25}{100} = 0.90$ lakh

$\therefore$ Reqd % $= \frac{(0.972 - 0.90)}{0.9} \times 100$

$= \frac{0.072}{0.9} \times 100 = 8\%$

134. 3; Minor males in City E

$= 7.2 \times \frac{4}{9} \times \frac{35}{100} = 1.12$ lakh

Adult males in City B

$= 3.6 \times \frac{5}{9} \times \frac{70}{100} = 1.4$ lakh

$\therefore$ Reqd % $= \frac{1.12}{1.4} \times 100 = 80\%$

135. 3; Adult females in City C

$= 4.5 \times \frac{3}{5} \times \frac{64}{100} = 1.728$ lakh

Minor males in City C

$= 4.5 \times \frac{2}{5} \times \frac{32}{100} = 0.576$ lakh

$\therefore$ Difference = 1.728 - 0.576 = 1.152 lakh

136. 4; Total marks scored by Student D

$= \frac{1}{100}$ {68.75 × 80 + 78.75 × 80 + 72.5 × 80 + 55 × 100 + 80 × 120 + 60 × 150}

$= \frac{1}{100}$ {5500 + 6300 + 5800 + 5500 + 9600 + 9000} $= \frac{1}{100} \times 41700 = 417$

137. 3; $\therefore$ Average $= \frac{1}{6} \times \frac{80}{100}$ {58.75 + 77.5 + 80 + 68.75 + 75 + 67.5} $= \frac{8}{60} \times 427.5 = 57$

138. 5; Marks scored by Student B in Maths

$= 150 \times \frac{72}{100} = 108$

Marks scored by Student E in Physics

$= 80 \times \frac{75}{100} = 60$

$\therefore$ Reqd % $= \frac{108}{60} \times 100 = 180\%$

139. 2; Marks scored by Student B in English $= 120 \times \frac{60}{100} = 72$

Marks scored by Student A in Maths

$= 150 \times \frac{84}{100} = 126$

$\therefore$ Ratio $= \frac{72}{126} = \frac{4}{7} = 4 : 7$

140. 5; Marks scored by Student F in Maths $= 150 \times \frac{70}{100} = 105$

Marks scored by Student E in Chemistry $= 80 \times \frac{70}{100} = 56$

$\therefore$ Reqd % $= \frac{(105 - 56)}{56} \times 100 = \frac{4900}{56} = 87.5\%$

141. 1; Total illiterate females

$= 1.2 \times \frac{5}{12} \times \frac{43}{100} + 1.75 \times \frac{2}{5} \times \frac{40}{100} + 3.4 \times \frac{9}{17} \times \frac{47}{100} + 2.5 \times \frac{3}{5} \times \frac{39}{100} + 1.8 \times \frac{1}{2} \times \frac{35}{100} + 3.0 \times \frac{2}{5} \times \frac{44}{100}$

= 0.215 + 0.28 + 0.846 + 0.585 + 0.315 + 0.528 = 2.769 lakh

142. 2; Literate males from City F

$= 3 \times \frac{3}{5} \times \frac{68}{100} = 1.224$

Literate females from City C

$= 3.4 \times \frac{9}{17} \times \frac{47}{100} = 0.846$

$\therefore$ Read % $= \frac{0.846 \times 100}{1.224} = 69.11 \approx 69\%$

143. 3; $\frac{1}{6} \times \frac{1}{100}$ {$1.2 \times \frac{5}{12} \times 57 + 1.75 \times \frac{2}{5} \times 60 + 3.4 \times \frac{9}{17} \times 53 + 2.5 \times \frac{3}{5} \times 61 + 1.8 \times \frac{1}{2} \times 65 + 3 \times \frac{2}{5} \times 56$}

$= \frac{1}{600}$ {28.5 + 42 + 95.4 + 91.5 + 58.5 + 67.2}

$= \frac{383.1}{600} = 0.6385$ lakh = 63850

144. 3; Literate males in City B $= 1.75 \times \frac{3}{5} \times \frac{36}{100}$

Literate females in City E = $1.75 \times \frac{2}{5} \times \frac{60}{100} = 0.42$ lakh

$\therefore$ Ratio = $\frac{3 \times 36}{2 \times 60} = \frac{9}{10} = 9:10$

145. 2; Literate males

$= 1.2 \times \frac{7}{12} \times \frac{67}{100} + 1.75 \times \frac{3}{5} \times \frac{64}{100}$

= 0.469 + 0.672 = 1.141 lakh

Literate females

$= 3.4 \times \frac{9}{17} \times \frac{53}{100} + 2.5 \times \frac{3}{5} \times \frac{61}{100}$

= 0.954 + 0.915 = 1.869 lakh

$\therefore$ Difference = 1.869 - 1.141

= 0.728 lakh = 72800

146. 3; Passed students from School D in the year

2010 = $876 \times \frac{7}{12} = 511$

Failed students from School B in the year 2012

$= 952 \times \frac{8}{17} = 448$

$\therefore$ Difference = 511 - 448 = 63

147. 2; Total failed students from School F

$= 986 \times \frac{12}{29} + 867 \times \frac{5}{17} + 924 \times \frac{13}{21}$

= 408 + 255 + 572 = 1235

148. 4; Total passed students from all six schools in the year 2011 = $754 \times \frac{7}{13} + 845 \times \frac{8}{13} +$

$792 \times \frac{7}{11} + 828 \times \frac{11}{18} + 726 \times \frac{7}{11} + 867 \times \frac{12}{17}$

= 406 + 520 + 504 + 506 + 462 + 612 = 3010

149. 3;

Average= $\frac{1}{3}\{810 \times \frac{7}{15} + 792 \times \frac{4}{11} + 637 \times \frac{3}{7}\}$

$= \frac{1}{3}\{378 + 288 + 273\} = \frac{939}{3} = 313$

150. 5; Passed students from School E in the year

2010 = $870 \times \frac{3}{5} = 522$

Failed students from School A in the year 2011

$= 1251 \times \frac{6}{13} = 348$

$\therefore$ Reqd % = $\frac{522}{348} \times 100 = 150\%$

151. 3; Income of Company C_{2011}

$= 25.4 + 25.4 \times \frac{21.5}{100}$

= 25.4 + 5.461 = 30.861 crore

152. 2; Profit of Company A in 2012

$= 23.2 \times \frac{31.5}{100} = 7.308$

Profit of Company B in 2012

$= 24.8 \times \frac{27.5}{100} = 6.82$

$\therefore$ Difference = 7.308 - 6.820 = 0.488 crore

153. 4; Expenditure of Company A

= 17.8 + 23.2 = 41 crore

Expenditure of Company C

= 27.5 + 22.5 = 50 crore

Reqd% = $\frac{41}{50} \times 100 = 82\%$

154. 2; Percentage profit of Company $C_{2009} = 28.4\%$

Percentage profit of Company $A_{2007} = 16.2\%$

$\therefore$ Reqd % = $\frac{28.4 - 16.2}{16.2} \times 100$

$= \frac{12.2 \times 100}{16.2} = 75.3\% \approx 75\%$

155. 3; Income of Company B_{2010} = $23 + 23 \times \frac{25}{100}$

= 28.75 crore

Expenditure of Company A_{2009} = 21 crore

$\therefore$ Reqd % = $\frac{28.75}{21} \times 100 = 136.9 \approx 137\%$

156. 5; Number of I_1 produced by A

$= \frac{80370}{57} \times 25 = 35250$

Number of I_1 produced by B

$= \frac{61050}{55} \times 19 = 21090$

$\therefore$ Total = 35250 + 21090 = 56340

157. 1; Difference

$$= \frac{73130}{(25+24+22)} \times (25-22) = \frac{73130 \times 3}{71}$$

$= 3090$

158. 3; Required % $= \frac{23}{25} \times 100 = 92\%$

159. 2; Number of I_1 produced by D

$$= \frac{61880}{68} \times 21 = 19110$$

Number of I_1 produced by F.

$$= \frac{93160}{17} \times 3 = 16440$$

$$\text{Required \%} = \frac{19110 - 16440}{16440} \times 100$$

$$= \frac{2670 \times 100}{16440} = 16.25\%$$

160. 2; Total $= 80370 \times \frac{23}{57} + 61050 \times \frac{15}{55} + 77490 \times \frac{18}{63} + 61880 \times \frac{23}{68} + 73130 \times \frac{24}{71} + 93160 \times \frac{5}{17}$

$= 32430 + 16650 + 22140 + 20930 + 24720 + 27400 = 14420$

161. 1; Average marks of all students in Physics

$= \frac{1}{6}$ [75{0.84 + 0.68 + 0.72 + 0.48 + 0.70 + 0.56}] $= \frac{1}{6}[75 \times 3.98] =$

$\therefore$ Average $= \frac{298.5}{6} = 49.75$

162. 5; Total marks scored by Student F in all the subjects together = 75 × 0.56 + 75 × 0.66 + 200 × 0.55 + 50 × 0.76 + 150 × 0.66 = 42 + 49.5 + 110 + 38 + 99.

= 338.5

163. 2; Marks scored by Student B = 75 × 0.68 + 75 × 0.64 + 200 × 0.49 + 50 × 0.74 + 150 × 0.52 = 51 +48 + 98 + 37 + 78=312

$\therefore$ Reqd % $= \frac{312}{550} \times 100 = 56.27 \approx 57\%$

164. 1; Marks scored by Student C in Physics

= 75 × 0.72 = 54

Marks scored by Student C in English

= 150 × 0.64 = 96

$\therefore$ Reqd % $= \frac{54}{96} \times 100 = 56.25\% \approx 56\%$

165. 3; Total marks obtained by Student D = (75 × 0.82) + (150 × 0.70) = 61.5 + 105 = 166.5

Total marks obtained by Student F = (75 × 0.66) + (150 + 0.66) = 49.5 + 99 = 148.5

$\therefore$ Difference = 166.5 - 148.5 = 18

166. 4; Number of students enrolled in College A in the year 2009 = 1000

$\therefore$ Number of students passed

$$= 1000 \times \frac{80}{100} \times \frac{60}{100} = 480$$

167. 3; Reqd number of students

$$= 2290 \times \frac{70}{100} = 1603$$

168. 3; Average number of students enrolled in all colleges together in the year 2009

$$= \frac{3770}{5} = 754$$

Average number of students enrolled in all colleges together in the year 2010

$$= \frac{3090}{5} = 618$$

$\therefore$ Reqd ratio $= \frac{754}{618} = \frac{377}{309} = 377 : 309$

169. 4; Number of students enrolled in College A in the year 2009= 1000

Number of students enrolled in College B in the year 2011 = 650

$\therefore$ Reqd% $= \frac{350}{650} \times 100 = 53.84\% \approx 54$

170. 5; Total number of students in the year 2010 from all the colleges = 3090

$\therefore$ Reqd number of students = 10% of 3090 = 309

171. 5; Number of people in Teaching profession

$= \frac{30}{100} \times 25000 = 7500$

Number of people in Medical profession

$= \frac{10}{100} \times 25000 = 2500$

$\therefore$ Reqd% $= \frac{7500}{2500} \times 100 = 300\%$

172. 3; Total numbers of males in Banking and Medical professions

$= 25000 \times \frac{20}{100} \times \frac{60}{100} + 25000 \times \frac{10}{100} \times \frac{40}{100}$

= 3000 + 1000 = 4000

The total number of females in Medical and Banking profession = 10% of 60% of 25000 + 20% of 40% of 25000 = 1500 + 2000 = 3500

$\therefore$ Reqd ratio $= \frac{4000}{3500} = \frac{8}{7} = 8:7$

173. 3; Females in Engineering professions

$= 25000 \times \frac{25}{100} \times \frac{7}{100} = 625 \times 7 = 4375$

Males in Banking profession

$= 25000 \times \frac{25}{100} \times \frac{60}{100} = 3000$

Reqd% $= \frac{4375}{3000} \times 100 = 145.83 \approx 146\%$

174. 3; Number of males in Banking and Medical = 20% of 60% of 25000 + 10% of 40% of 25000 = 3000 + 1000 = 4000

Number of females in Law and Teaching

$= \frac{15}{100} \times \frac{20}{100} \times 25000 + 25000 \times \frac{30}{100} \times \frac{60}{100} = 5250$

$\therefore$ Reqd ratio $= \frac{4000}{5250} = \frac{16}{21} = 16:21$

175. 1; Number of females in Engineering profession = 25% of 70% of 25000 = 4375

Number of males in Law profession = 15% of 80% of 25000 = 3000

Reqd % $= \frac{4375 - 3000}{3000} \times 100$

$= \frac{1375}{3000} \times 100 = 45.83 \approx 46\%$

176. 3; Total amount of bill paid by Dev in the month of June for all commodities = 123 + 150 + 324 + 134 = ` 731

177. 3; Average $= \frac{315 + 135 + 98 + 116 + 131}{5}$

$= \frac{795}{5} =$ `159

178. 1; Reqd difference = 323 - 143 = ` 180

Alternate Method:

Mobile bill paid by Ravi in May = `143

Laundry bill paid by Dev in March = `323

$\therefore$ Difference = 323 - 143 = `180

179. 4; Manu paid second highest mobile bill in the month of March = `345

And Manu paid lowest electricity bill in the month of May.

180. 1; Reqd ratio $= \frac{135}{245} = 27:49$

181. 3; Total distance from Surat to Nadiad Junction = 440 - 253 = 183 km

182. 5; Total time taken by the train from Anand Junction to Ahmedabad = 8:00 - 6:45 = 1hr 15 min

183. 1; Reqd ratio $= \frac{378}{306} = 21:17$

184. 2; Arrival time of the train at Bhuj = (5:40 + 0:23 - 0:2) = 6:01 pm

185. 3; We see in the graph that there is second lowest distance between Dadar and Vasai Road = 42 km

186. 5; Maximum temperature of Ontario on 1st November = 4°C

Minimum temperature of Bhuj on 1st January = -7°C

$\therefore$ Difference = 4 + 7 = 11°C

187. 1; There is second highest temperature of Kabul on 1st October = 37°C

The minimum temperature of Sydney is on 1st January (13°C).

188. 3; Diff of temp in Bhuj on 1st September → 24 - 14 = 10°C

Diff of temp in Bhuj on 1st October → 35 - 21 = 14°C

Diff of temp in Bhuj on 1st November → 19 - 8 = 11°C

Diff of temp in of Bhuj on 1 st December → 9 - 2 = 7°C

Diff of temp in Bhuj on 1st January → -7 + 4 = -3°C.

Hence, the second highest difference in temperature is on 1st November.

189. 5; Average $= \frac{12 + 9 + 15 + 2 + 5}{5} = \frac{43}{5} = 8.6$°C

190. 2; Reqd ratio $= \frac{9}{15} = 3:5$

191. 1; Number of Swift manufactured during 2007 to 2012 = (250 + 200 + 230 + 245 + 260 + 275) = 1460

Number of SX4 manufactured during 2007 to 2012 = (200 + 230 + 225 + 210 + 135 + 155) = 1155

Number of Ertiga manufactured during 2007 to 2012 = (128 + 150 + 142 + 170 + 180 + 230) = 1000

Number of Zen manufactured during 2007

to 2012 = (140 + 155 + 160 + 175 + 185 + 220) = 1035

Number of Echo manufactured during 2007 to 2012 = (115 + 120 + 135 + 125 + 130 + 120) = 745

Thus, Swift is manufactured in maximum number.

192. 1; Production of Swift in 2007 = 250 and in 2012 = 275

$$\therefore \text{ Percentage increase } = \frac{275-250}{250}\times 100$$

$$= 10\%$$

193. 2; The table shows that the production; of Zen increases continuously over the years.

194. 4; Production of Echo in 2011 = 130

Production of SX4 in 2010 = 210

$$\text{Reqd\%} = \frac{130\times 100}{210} = 61.90\%$$

195. 3; Production of Zen in 2008 = 155 and that in 2010 = 175

$$\therefore \text{ Percentage increase } = \frac{175-155}{155}\times 100$$

$$= \frac{20}{155}\times 100 = 12.9\%$$

196. 1; $\text{Reqd \%} = \frac{221}{4933} \times 100 = 4.48 = 4.5\%$

197. 2; $\text{Difference} = \frac{1}{5}$ {1542 - 1382} + (1545 - 1384) + (1550 - 1275) + (1570 - 1300) + (1580 - 1290)}

$$= \frac{1}{5}\{160 + 161 + 275 + 270 + 290\}$$

$$= \frac{1}{5} \times 1156 = 231.2 \approx 231$$

198. 4; $\text{Reqd ratio} = \frac{5835}{5625} = \frac{233}{225} = 233 : 225$

199. 5; Total number of employees in all the departments of all the organisations together = 4933 + 4751 + 6631 + 7787 + 3867 + 221 = 28190

200. 3; $\text{Reqd \%} = \frac{960}{5703} \times 100 = 16.83 \approx 17\%$

201. 2; $\text{Reqd ratio} = \frac{980}{1120} = \frac{7}{8} = 7 : 8$

202. 5; Average number of students in College A

$$= \frac{5610}{6} = 935$$

Average number of students in College C

$$= \frac{5490}{6} = 915$$

$\therefore$ Reqd difference = 935 - 915 = 20

203. 4; Total number of students in College B = 5810

Total number of students in College D = 5598

$\therefore$ Reqd difference = 5810 - 5598 = 212

204. 5; Average number of students in College E

$$= \frac{5880}{6} = 980$$

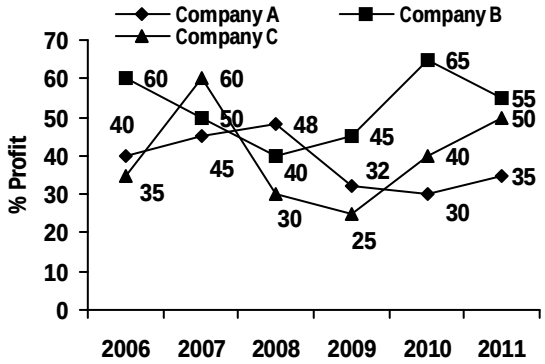
205. 1; $\therefore$ Reqd%

$$= \left[\frac{\text{Number of students in College C in 2010}}{\text{Total number of students in 2010}}\times 100\right]\%$$

$$= \left[\frac{980}{4910}\times 100\right]\% = 19.95\% \approx 20\%$$

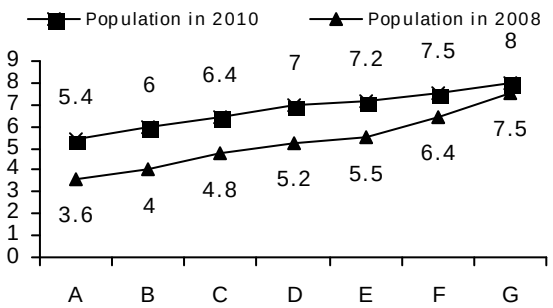
DATA INTERPRETATION LINE GRAPH

Directions (Q. 1-5): Following line-graph shows the percentage profit earned by three companies A, B and C in the period of 2006 to 2011.



1. If the expenditure of Company A in the year 2008 is ?55.5 lakh then what is its income in that year?
   (1) ` 78.841akh (2) ` 82.141akh (3) ` 84.61akh (4) ` 85.51akh (5) ` 87.21akh
2. What is the percentage rise in the percentage profit of Company B from 2008 to 2009?
   (1) 5% (2) 10% (3) 12.5% (4) 25% (5) None of these
3. If the total expenditure of Company A in the year 2006 and Company C in the year 2010 together is ` 94 lakh then what is the sum of the total income of A in 2006 and C in 2010?
   (1) ` 67.141akh (2) ` 131.61akh (3) ` 65.81akh (4) ` 134.28 lakh (5) None of these
4. If the income of Company A in year 2006 and expenditure of Company B in year 2007 are equal and ?91 lakh each then what is the difference between the income of B in 2007 and the expenditure of A in the year 2006?
   (1) ` 67.2 lakh (2) ` 69.8 lakh (3) ` 70.41 lakh (4) ` 71.5 lakh (5) None
5. If the expenditure of Company B in the year 2006 and the income of C in the year 2009 are equal then what is the ratio of the income of B in the year 2006 to the expenditure of C in the year 2009?
   (1) 2:1 (2) 1:2 (3) 12:5 (4) 5:12 (5) None of these

Directions (Q. 6 - 10): Following line-graph shows the population of seven cities (in lakh) and the table shows the percentage of literate population in these cities.



	% Literate 2008	% Literate 2010
A	57.8%	62.3%
B	63.1%	68.6%
C	59.2%	66.4%
D	64.5%	73.2%
E	67.7%	71.0%
F	65.8%	74.5%
G	68.9%	73.3%

6. What is the percentage rise in the population of City C from 2008 to 2010?
(1) 27.5% (2) 33.3% (3) 36.8% (4) 37.5% (5) 39%

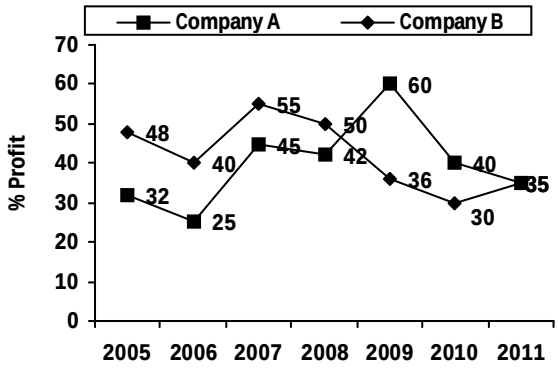
7. What is the total literate population of City A in the year 2008 and 2010 together (in lakh)?
(1) 5.126 (2) 5.248 (3) 5.312 (4) 5.445 (5) 5.560

8. What is the difference between the total illiterate population of City G and City F in the year 2008? (in lakh)
(1) 0.1437 (2) 0.1487 (3) 0.1527 (4) 0.1567 (5) 0.1687

9. The literate population of City E in the year 2010 is approximately what percentage more than its literate population in 2008?
(1) 27.5% (2) 32% (3) 34.8% (4) 36% (5) 37.3%

10. What is the difference between the Literate population and illiterate population of City D in the year 2008? (in lakh)
(1) 1.302 (2) 1.406 (3) 1.508 (4) 1.603 (5) 1.704

Directions (Q. 11-15): Following line-graph shows the percentage profit earned by two companies A and B during the period of 2005 to 2011.



11. If the income of Company A in 2007 and that of B in 2009 are ` 52.49 lakh and ?61.2 lakh respectively, what is the total expenditure of Company A in 2007 and that of B in 2009?
(1) ` 78.4 1akh (2) ` 79.6 1akh (3) ` 80.4 1akh (4) ` 81.2 1akh (5) ` 82.5 1akh

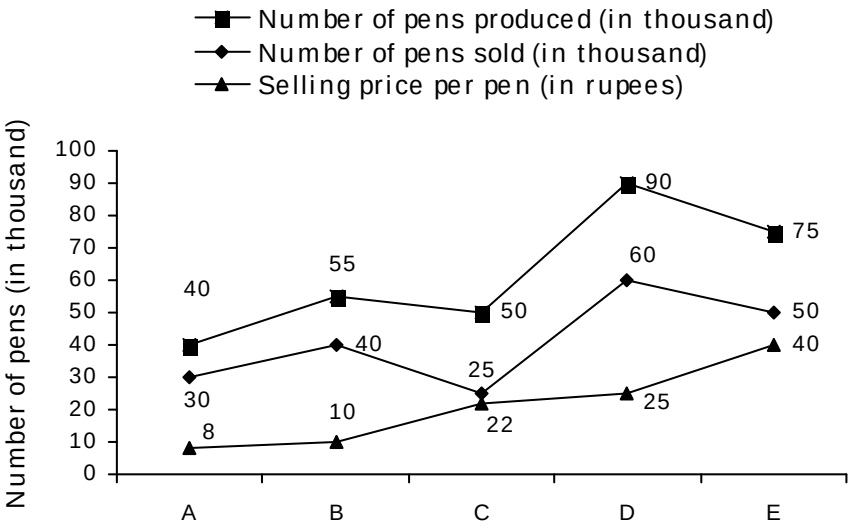
12. If the expenditure of Company A in 2005 and the income of B in 2006 are ` 48.5 lakh and ` 75.04 lakh respectively, what is the difference between the income of A in 2005 and the expenditure of B in 2006?
(1) ` 9.86 lakh (2) ` 9.92 lakh (3) ` 10.04 lakh (4) ` 10.24 lakh (5) `10.421akh

13. If the total income of Company B in 2006 and that of Company A in 2010 together is ?133 lakh, what is the sum of the expenditure of B, in 2006 and the expenditure of A in the year 2010?
(1) ` 95 1akh (2) ` 1.33 1akh (3) ` 186.2 1akh (4) ` 93.1 1akh (5) None of these

14. If the expenditure of Company A in 2006 is the same as the income of B in 2008, what would be the ratio of the expenditure of B in 2008 to the income of A in 2006?
(1) 4:7 (2) 4:9 (3) 7:15 (4) 8:15 (5) 4:15

15. If the expenditure of A in 2009 and the expenditure of B in 2005 are equal, the income of B in 2005 is approximately what percentage of the income of A in the year 2009?
(1) 87.5% (2) 92.5% (3) 94.5% (4) 96.5% (5) 108%

Directions (Q. 16-20): Following line graph shows the number of pens produced by a pen manufacturing company, the number of pens sold by it and the price of one pen of different types.



16. The average number of pens sold by the company i s what percentage of the average number of pens produced by it in all the five types together? (Answer in approximate value)
(1) 56% (2) 62% (3) 66% (4) 70% (5) 75%

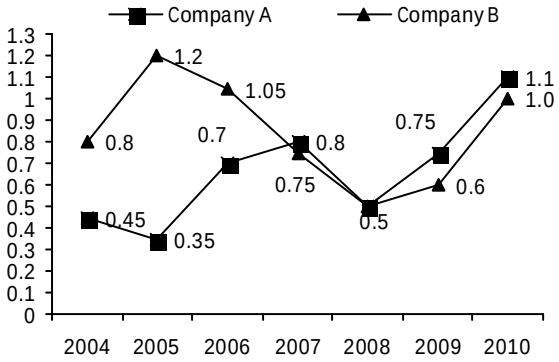
17. If the cost of manufacturing of Type A pens is ` 4.50 per pen, what is the net profit earned by the company by selling all pens of type A?
(1) ` 95 thousand (2) ` 1.05 lakh (3) ` 1.20 lakh (4) ` 1.25 lakh (5) None of these

18. What is the net amount received by the company by selling all the pens of all types?
(1) ` 46.91akh (2) ` 47.21akh (3) ` 48.81akh (4) ` 49.4 lakh (5) None of these

19. If the manufacturing cost of Type C and that of Type D pens is equal and it is ` 15 per pen, what is the net profit earned by the company by selling all pens of Type C and Type D?
(1) ` 6.81akh (2) ` 71akh (3) ` 7.21akh (4) ` 7.51akh (5) ` 7.751akh

20. The profit earned by selling all pens of Type B is what percentage of the total profit earned by selling all pens of Type E if the per unit cost of Type B pens is `5.5 and that of Type E pens is ` 25?
(1) 18% (2) 22% (3) 24% (4) 28% (5) 32%

Directions (Q. 21-25): The following graph shows the ratio of imports to exports of two companies A and B in different years.



21. The ratio of imports to exports of Company B in year 2006 is what percentage of the ratio of imports to exports of Company A in year 2009?
(1) 40% (2) 30% (3) 120% (4) 140% (5) 130%

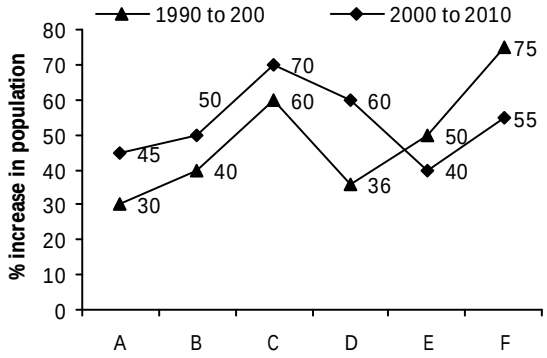
22. If imports of Company A in year 2008 was 78 lakh, what will be the exports of Company B in the same year?
(1) 78 lakh (2) 156 lakh (3) 39 lakh (4) 117 lakh (5) None of these

23. If the sum of exports of Company A in year 2007 and Company B in year 2004 is 180 lakh, what will be the sum of imports of Company A in year 2007 and Company B in year2004?
(1) 144 lakh (2) 180 lakh (3) 225 lakh (4) 90 lakh (5) None of these

24. If exports of A and imports of B in year 2009 are equal and they are 120 lakh each, what will be the difference between exports of B and imports of A in year 2009?
(1) 18 1akh (2) 40 lakh (3) 80 lakh (4) 110 lakh (5) 145 lakh

25. If the imports of Company A in year 2008 and exports of Company B in year 2005 are 80 lakh and 60 lakh respectively, the imports of Company B in year 2005 are what percentage of exports of Company A in year 2008?
(1) 45% (2) 90% (3) 75% (4) 222.22% (5) 111.11%

Directions (Q. 26-30): The following graph shows the percentage growth in population of six cities from 1990 to 2000 and 2000 to 2010.



26. If the population of City F in year 1990 was 12 lakh, what will be its population in year 2010?
(1) 31.65 lakh (2) 32.55 lakh (3) 33.4 lakh (4) 34.64 lakh (5) None of these

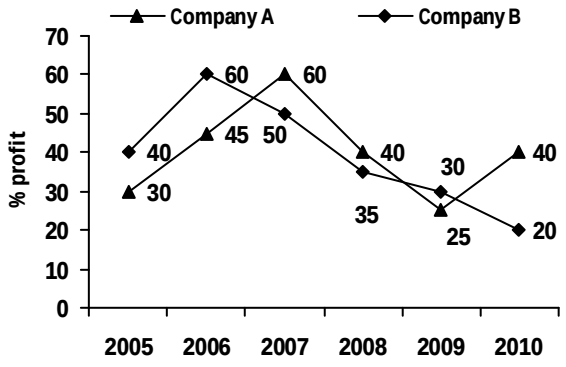
27. The population of City D in year 2000 was what per cent of its population in year 2010?
(1) 57.8% (2) 60% (3) 62.5% (4) 96% (5) 160%

28. In year 1990 the population of City A and City B are equal and the population of City A in year 2010 is 37.7 lakh. What is the population of City B in year 2010?
(1) 38.4 lakh (2) 42 lakh (3) 43.5 lakh (4) 44 lakh (5) 46.4 lakh

29. If the population of City C in year 2010 and that of City D in year 2000 are equal and they are 27.2 lakh each the population of City C in year 1990 is what percentage of population of City D in the same year?
(1) 50% (2) 75% (3) 80% (4) 120% (5) 200%

30. The population of City E in year 1990 was what fraction of its population in 2010?
(1) 8:19 (2) 10:19 (3) 8:21 (4) 10:21 (5) 15:19

Directions (Q. 31-35): In the following line-graph, the percentage profit earned by two companies A and B during the period 2005 to 2010 is given.



31. What is the percentage increase in the per cent profit of Company A from the year 2006 to 2007?

(1) 15% (2) 25% (3) $33\frac{1}{3}\%$ (4) $52\frac{1}{2}\%$ (5) ;None of these

32. If the incomes of Company A and B are equal in the year 2007, what is the ratio of the expenditure of A to that of B?

(1) 6:5 (2) 5:4 (3) 4:3 (4) 3:2 (5) None of these

33. If the income of Company A in 2009 and the expenditure of Company B in 2010 are equal and that are ` 90 lakh each, what is the difference between the income of B in 2010 and the expenditure of A in 2009?

(1) `18 lakh (2) ` 36 lakh (3) ` 45 lakh (4) ` 41 lakh (5) None of these

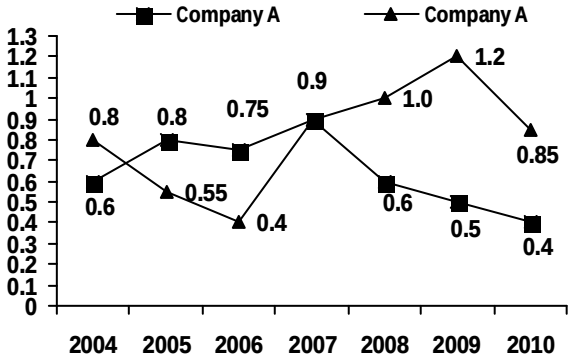
34. If the income of Company A in the year 2010 and the expenditure of Company B in the year 2005 are ` 98 lakh and ` 85 lakh respectively, what is the sum of the expenditure of A in 2010 and the income of B in the year 2005?

(1) `189 1akh (2) `183 1akh (3) `155 1akh (4) ` 217 lakh (5) None of these

35. The expenditure of Company B in the year 2006 is what percentage of its income in that year?

(1) 60% (2) 160% (3) 62.5% (4) 40% (5) 80%

Directions (Q. 36-40): Following line-graph shows the ratio of imports to exports of two countries A and B over the years.



36. If the value of imports of Country A in the year 2008 is ` 39.72 crore, what is the value of exports of Country Ain that year?

(1) 64.6 crore (2) 66.2 crore (3) 68.5 crore (4) 69.8crore (5) 72crore

37. If the exports of Country A in the year 2009 and the exports of Country B in the year2007 are equal and they are 96.4 crore each, what is the difference between the imports of B in the year 2007 and the import of A in the year 2009?

(1) ` 32.28 crore (2) ` 34.86 crore (3) ` 36.64 crore (4) ` 38.56 crore (5) ` 40.5 crore

38. If the total imports of Country A in the year 2006 and the total imports of B in the year 2004 are ` 63.6 crore and ` 62.8 crore respectively, what is the sum of exports of A in 2006 and exports of B in 2004?

(1) `161.1 crore (2) `162.2 crore (3) `163.3 crore (4) `164.4 crore (5) `165.5 crore

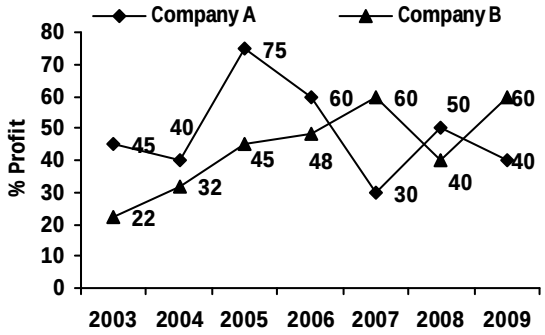
39. The ratio of imports to exports of Country B in the year 2005 is what percentage of the ratio of imports to exports of Country A in 2010?

(1) 112.5% (2) 137.5% (3) 150% (4) 72.72% (5) 87.5%

40. If, for Country A, in the year 2005, the import is increased by 25% and the export is decreased by 50%, what Will be the new ratio of import to export of Country A in 2005?

(1) 1.25 (2) 2 (3) 2.5 (4) 0.6 (5) 0.5

Directions (Q. 41-45): Following line-graph shows the percentage profit earned by two different companies A and B over the years.



41. In which of the following years the percentage of expenditure with respect to income is 62.5% for Company B?
(1) 2004 (2) 2005 (3) 2006 (4) 2007 (5) None of these

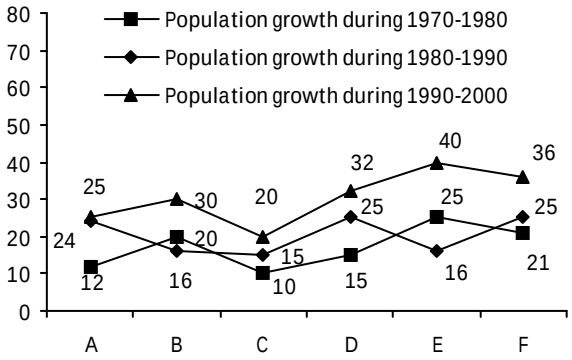
42. If the sum of expenditure of Company A in 2008 and that of Company B in 2004 is `175 lakh, what will be the sum of the income of A in the year 2008 and the income of B in 2004?
(1) `125 1akh (2) `245 lakh (3) `122.5 1akh (4) `250 1akh (5) None of these

43. If the expenditure of Ain 2009 is equal to the expenditure of B in the year 2004, the income of B in the year 2004 is what percentage of the income of A in the year 2009?
(1) 62.5% (2) 71.42% (3) 87.5% (4) 140% (5) 160%

44. If the expenditure of Ain the year 2005 and the income of B in the year 2003 are equal and it is `116 lakh each what is the difference between the income of Ain 2005 and the expenditure of B in 2003?
(1) `82.8 1akh (2) `84.6 1akh (3) `86.4 lakh (4) `88.2 lakh (5) `80.7 lakh

45. If the income of A in 2009 and the expenditure of B in 2005 are `112 lakh and `56 lakh respectively, what is the ratio of the expenditure of A in 2009 to the income of B in 2005?
(1) 3 : 5 (2) 5 : 7 (3) 7 : 9 (4) 1 : 3 (5) 1 : 2

Directions (Q. 46-50): Following line-graph shows the percentage growth of population of six cities (A, B, C, D, E and F) in three decades.



46. If the population of City C was 8.5 lakh in the year 1970, what is the population of City C in the year 2000?
(1) 11.256 lakh (2) 12.134 lakh (3) 12.903 lakh (4) 13.196 lakh (5) 13.427 lakh

47. If the population of City D is 2087250 in the the year 2000, what was its population in the year 1970?
(1) 11 lakh (2) 11.4 lakh (3) 12.2 lakh (4) 12.6 lakh (5) 13 lakh

48. If, in the year 2000, the populations of City A and B are 1388800 and 1302912 respectively, the population of City B in the year 1970 was what percentage of the population of City A in the year 1970?
(1) 72% (2) 75% (3) 90% (4) 96% (5) 108%

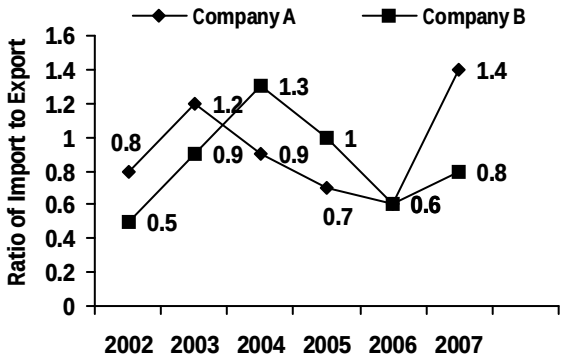
49. If the population of City E and City F in the year 1970 was 12.5 lakh and 10 lakh respectively, what is the difference between the population of City E and the population of City F in the year 2000?

(1) 3.615 lakh (2) 3.904 lakh (3) 4.264 lakh (4) 4.805 lakh (5) None of these

50. If the population of City C and that of City D were equal in the year 1970, what is the ratio of the population of City C to that of City D in 1990?

(1) 22:25 (2) 26:31 (3) 25:28 (4) 3:4 (5) 7:9

Directions (Q. 51-55): Following line-graphs show the ratio of imports to exports by two companies (A and B) during the period 2002-2007.



51. In how many years were the imports less than or equal to the exports for Company B?

(1) 4 (2) 2 (3) 3 (4) 5 (5) None of these

52. The import-to-export ratio of Company B in the year 2002 is what percentage of the import-to-export ratio of A in the year 2002?

(1) 60% (2) 160% (3) 162.5% (4) 62.5% (5) None of these

53. If the import of Company A in the year 2006 is 12 lakh, what is the total export of Company B in the same year?

(1) 7.2 lakh (2) 20 lakh (3) 12 lakh (4) 10 lakh (5) None of these

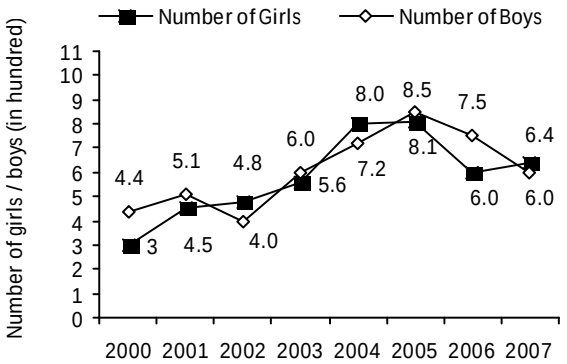
54. If the of exports of Company A and B are equal in the year 2003 and 40 lakh each, the total import of Company B is what percentage of the total import of Company A in that year?

(1) 133.33% (2) 75% (3) 90% (4) 33.33% (5) 25%

55. If the import of Company B in the year 2007 is 78 lakh, what is the difference between the total export and total import of Company B in that year?

(1) 15.6 lakh (2) 16.4 lakh (3) 19.5 lakh (4) 21.2 lakh (5) None of these

Directions (Q. 56-60): Following line-graph shows the number of boys and the number of girls admitted in a college in different years, Answer the questions given below based on this graph.



56. What is the difference between the total number of boys and that of girls admitted in all eight years together?

(1) 228 (2) 230 (3) 232 (4) 234 (5) 236

57. The number of girls admitted in the year 2000 and 2001 together is what percentage of the number of boys admitted in the year 2004 and 2007 together? (Answer in approximate value)

(1) 52.4% (2) 54.3% (3) 56.8% (4) 58% (5) 62.4%

58. What is the approximate percentage increase in the number of girls admitted in the year 2003 and 2004?

(1) 42.8% (2) 38.6% (3) 36.48% (4) 35% (5) 32%

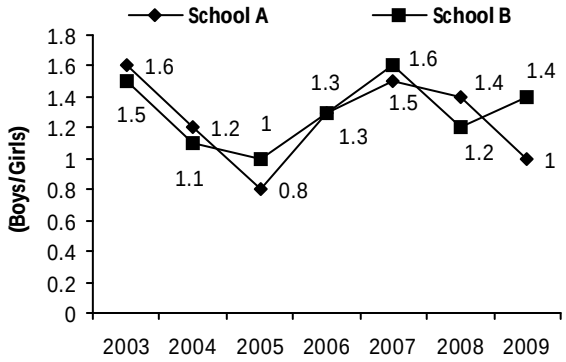
59. In which of the following years is the percentage rise in the number of boys the maximum compared to its previous year?

(1) 2001 (2) 2003 (3) 2004 (4) 2005 (5) None of these

60. The number of girls admitted in the year 2007 is what percentage more than the average number of girls admitted during the entire period of eight years ?

(1) 8.26% (2) 10.34% (3) 12.24% (4) 16% (5) 17.5%

Directions (Q. 61-65): Following line graph shows the ratio of the number of boys to the number of girls passed from two different schools A and B over the period 2003 to 2009.



61. If in year 2003 the number of boys passed from School A is 128, what is the difference between the number of boys passed and the number of girls passed from School A in 2003?

(1) 40 (2) 48 (3) 64 (4) 80 (5) None of these

62. In year 2007 the number of girls passed from School B is approximately what percentage of the number of boys passed in that year?

(1) 160% (2) 80% (3) 62.5% (4) 60% (5) None of these

63. In which year the difference between the number of boys passed and the number of girls passed is highest for School B?

(1) 2003 (2) 2005 (3) 2007 (4) 2009 (5) None of these

64. If the number of girls passed from School A in year 2005 and the number of girls passed from School B in 2006 are equal, the number of boys passed from School B in year 2006 is what percentage of the number of boys passed from School A in 2005?

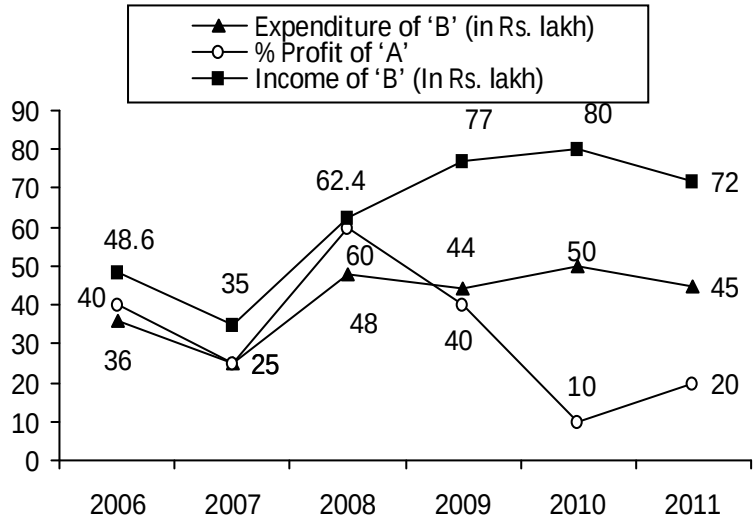
(1) 50% (2) 78.5% (3) 120% (4) 162.5% (5) None of these

65. If the number of girls passed from School B in year 2003 is 70, which is equal to the number of girls passed from School A in year 2006, the difference between the number of boys passed from B in 2003 and the number of boys passed from A in 2006, is what percentage of the total number

of girls passed from A in 2006 and B in 2003?

(1) 10% (2) 20% (3) 80% (4) 120% (5) 140%

Directions (Q. 66-70): Following line graph shows the per cent profit of Company A, income of Company B and expenditure of Company B from 1990 to 1995.



66. What is the difference between per cent profit of Company A and Company B in the year 2006?

(1) 5% (2) 7% (3) 11% (4) 12% (5) 15%

67. If the income of Company A in year 2007 was ` 32.5 lakh, what was the sum of the net profit of Company A and Company Bin 2007?

(1) `12.8 1akh (2) `13.2 1akh (3) `15 1akh (4) `16.5 lakh (5) None of these

68. In which of the following years was the per cent profit of Company B maximum?

(1) 2007 (2) 2008 (3) 2009 (4) 2010 (5) 2011

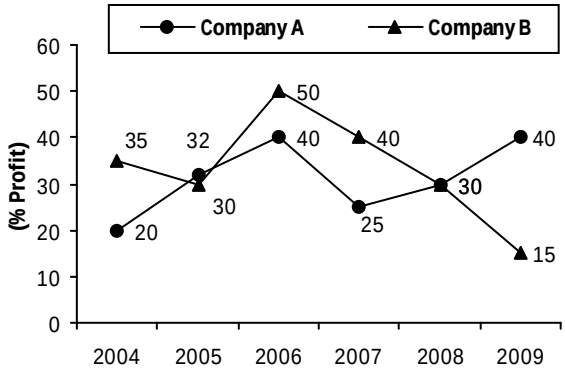
69. If the expenditure of Company A in year 2010 was `45 lakh the net profit of Company A is what per cent of net profit of company B in 2010?

(1) 15% (2) 25% (3) 40% (4) 75% (5) 80%

70. If the income of Company A in year 2011 was ` 90 lakh the net profit of Company B is what per cent more than the net profit of Company A?

(1) 30% (2) 60% (3) 75% (4) 80% (5) 90%

Directions (Q: 71-75): Following line graph shows the percentage profit earned by two companies A and B during the period 2004 to 2009. Answer the following questions based on this graph.



71. If the expenditure of Company B in the year 2004 was `17 lakh, what was its income in that year?
(1) `22.95 lakh (2) `23.151akh (3) `24.5 lakh (4) `25.65 lakh (5) `27.50 lakh

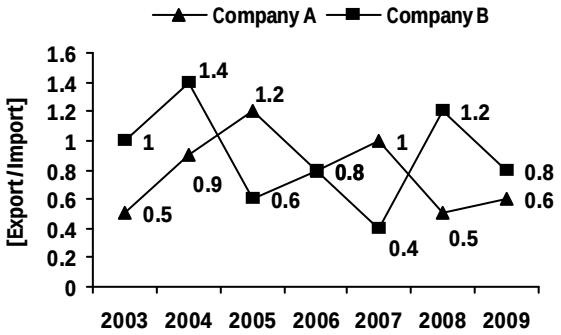
72. If the income of Company A in me year 2008 is `26 lakh, what is the expenditure of Company B in that year?
(1) `20 lakh (2) `33.81akh (3) `22.5 lakh (4) `21.6 lakh (5)Can't be determined

73. If the sum of expenditure of Company B in the year 2005 and 2008 together is `48 lakh, what is the total income of Company B in these two years together?
(1) `62.4 lakh (2) `36.2 lakh (3) `641akh (4) `65.5 lakh (5) None of these

74. In which year is the ratio of income to expenditure of Company A the maximum?
(1) 2004 (2) 2008 (3) 2006 (4) 2009 (5) None of these

75. If the expenditure of Company A in the year 2004 and Company B in die year 2009 are the same and the income of Company B in die year 2009 is `77 lakh, what is the income of Company A in the year 2004?
(1) `55 1akh (2) `66 lakh (3) `56 lakh (4) `64 lakh (5) None of these

Directions (Q. 76-80): Following line graph shows the ratio of import to export of two different Companies A and B during the period 2003 to 2009.



76. If the total import of Company B in year 2005 is 67.2 lakh, what is the total export of Company B in year 2005?
(1) 112 lakh (2) 96 lakh (3) 44.8 lakh (4) 40.32 lakh (5) None of these

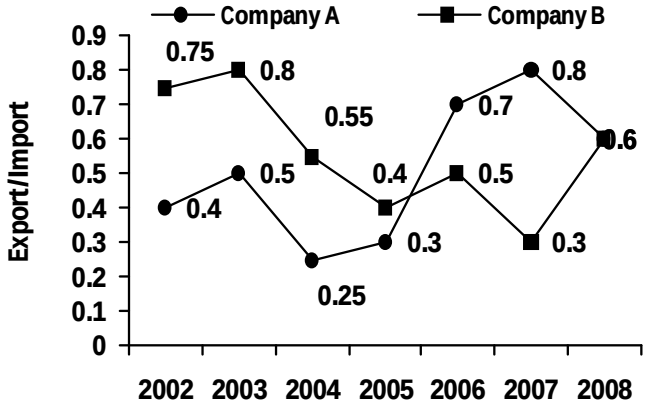
77. If the total export of Company A in year 2006 is 84 lakh, what will be the total import of Company B in year 2006?
(1) 105 lakh (2) 84 lakh (3) 67.2 lakh
(4) Can't be determined (5) None of these

78. If in year 2Q08 the export of Company A and import of Company B are 116 lakh and 117 lakh respectively, what will be the sum of imports of Company A and exports of Company B in 2008?
(1) 151.5 lakh (2) 152.5 lakh (3) 153.5 lakh (4) 154.5 lakh (5) 155.5 lakh

79. If in year 2005 the import of Company A is decreased by 25% and export is decreased by 50%, what will be the new ratio of import to export of Company A in 2005?
(1) 0.55 (2) 0.9 (3) 1.2 (4) 1.8 (5) 2.25

80. If the import of Company A in year 2005 and the export of Company B in year 2007 are 102.6 lakh and 112.5 lakh respectively, the export of A in 2005 is what percentage of the import of Company B in year 2007?
(1) 190% (2) 148% (3) 108% (4) 68.32% (5) 52.63%

Directions (Q. 81-85) : Following line graph shows the ratio of exports to imports of two companies A and B over the period 2002 to 2008.



81. If the import of Company A in 2004 was 96.8 lakh, what was the export of Company A in that year?
(1) 24.2 lakh (2) 36 lakh (3) 48.4 lakh (4) 64 lakh (5) None of these

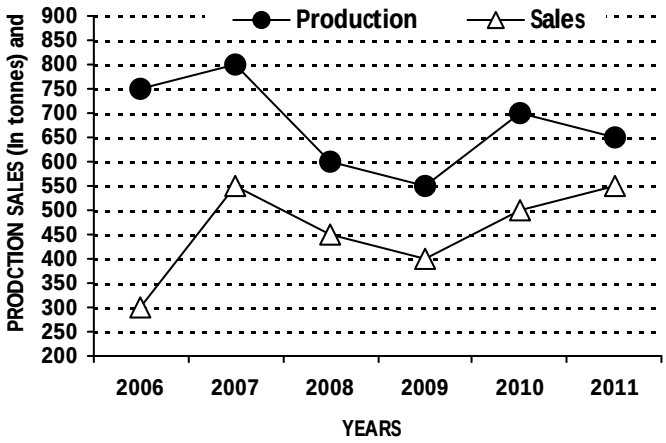
82. The ratio of export to import of Company B in year 2004 was what percentage of the ratio of export to import of Company A in year 2002?
(1) 72.72% (2) 97.5% (3) 115% (4) 137.5% (5) 150%

83. If the import of Company A in year 2007 and export of Company B in year 2008 are 86 lakh and 51 lakh respectively, what is the sum of export of Company A in 2007 and import of Company B in 2008?
(l) 1.536crore (2) 1.538crore (3) 1.540crore (4) 1.542 crore (5) 1.546 crore

84. If in year 2005 the export of Company B is increased by 125% and its import is decreased by 60%, what will the new ratio of export to import of Company B in 2005?
(1) 5 : 4 (2) 3 : 2 (3) 7 : 4 (4) 2 : 1 (5) 9 : 4

85. If the export of Company A in year 2005 and that of B in year 2002 were 23.4 lakh and 72 lakh respectively, then the import of Company A in year 2005 is what percentage of the import of Company B in year 2002?
(1) 81.25% (2) 83.5% (3) 85.75 (4) 87.5% (5) 123%

Directions (Q.86-90) Study the following information and answer the questions that follow :
THE GRAPH GIVEN BELOW REPRESENTS THE PRODUCTION (IN TONNES) AND SALES (IN TONNES) OF COMPANY A FROM 2006-2011.



The table given below represents the respective ratio of the production (in tonnes) of Company A to the production (in tonnes) of Company B. and the respective ratio of the sales (in tonnes) of Company A to the sales (in tonnes) of Company B.

[redacted]

Year	Production	Sales
2006	5 : 4	2 : 3
2007	8 : 7	11 : 12
2008	3 : 4	9 : 14
2009	11 : 12	4 : 5
2010	14 : 13	10 : 9
2011	13 : 14	1 : 1

86. What is the approximate percentage increase in the production of Company A (in tonnes) from the year 2009 to the production of Company A (in tonnes) in the year 2010 ?
(1) 18% (2) 38% (3) 23% (4) 27% (5) 32%

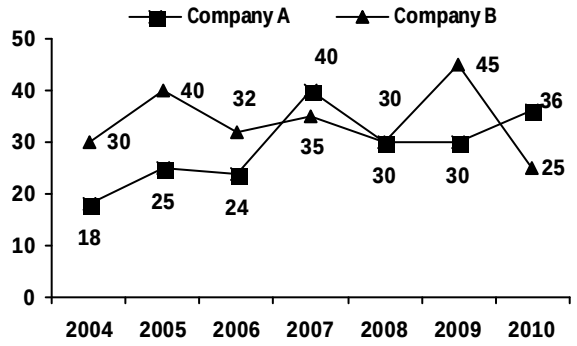
87 The sales of Company A in the year 2009 was approximately what percent of the production of Company A in the same year?
(1) 65% (2) 73% (3) 79% (4) 83% (5) 69%

88. What is the average production of Company B (in tonnes) from the year 2006 to the year-2011 ?
(1) 574 (2) 649 (3) 675 (4) 593 (5) 618

89 What is the respective ratio of the total production (in tonnes) of Company A to the total sales (in tonnes) of Company A?
(1) 81 : 64 (2) 64 : 55 (3) 71 : 81 (4) 71 : 55 (5) 81 : 55

90 What is the respective ratio of production of Company B (in tonnes) in the year 2006 to production of Company B (in tonnes) in the year 2008 ?
(1) 2 : 5 (2) 4 : 5 (3) 3 : 4 (4) 3 : 5 (5) 1 : 4

Directions (Q. 91-95): The following line graph shows the percentage profit of two companies over the years. Study it carefully and answer the questions that follow.



91. If the total income of Company A in the year 2006 was ` 55.8 crore then what was the expenditure of Company A in the same year?
(1) `42.5 crore (2) `45 crore (3) `47.5 crore (4) `50 crore (5) None of these

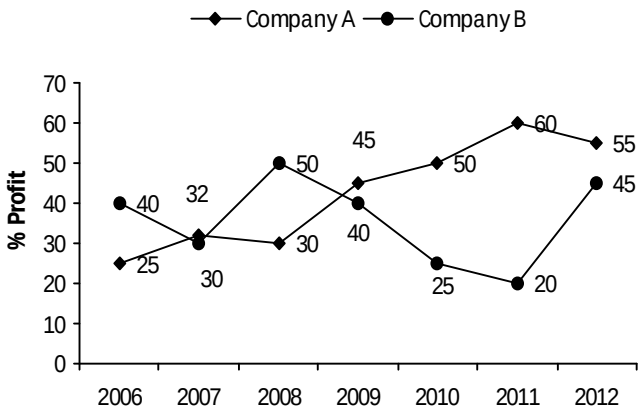
92. In which of the following years is the ratio of income to expenditure the maximum for Company B?
(1) 2004 (2) 2005 (3) 2008 (4) 2009 (5) 2010

93. If the total expenditure of Company A in 2009 and Company B in 2004 together was 7148 crore, what was the total income of Company A in 2009 and Company B in 2004 together?
(1) 7184.6 crore (2) 7188 crore (3) 7190.8 crore (4) 7192.4 crore (5) 7196 crore

94. If the expenditure of Company B in the year 2009 and the income of Company A in the year 2005 are equal and it is ` 56 crore each, what is the sum of the income of B in 2009 and the expenditure of A in 2005?
(1) 7124.8 crore (2) 7126 crore (3) 7127.5 crore (4) 7132 crore (5) 7134.8 crore

95. If the total income of Company A and Company B in the year 2008 is ` 78 crore what is the total expenditure of Company B in the year 2008?
(1) 30 crore (2) 39 crore (3) 60 crore (4) 7.8 crore (5) Data inadequate

Directions (Q. 96-100) : The following graph shows the net percentage profit of two companies, A and B for the period 2006 to 2012.



96. If the income of Company A in year 2007 is Rs 85.8 lakh, then what will be its expenditure (in Rs) in that year?
(1) 56 lakh (2) 65 lakh (3) 72.8 lakh (4) 97.64 lakh (5) 113.2561akh

97. If in year 2012 the expenditure of Company A was Rs 90.6 lakh, what was its income (in Rs) in that year?
(l) 139.181akh (2) 148 lakh (3) 138.2 lakh (4) 140.43 lakh (5) 144.64 lakh

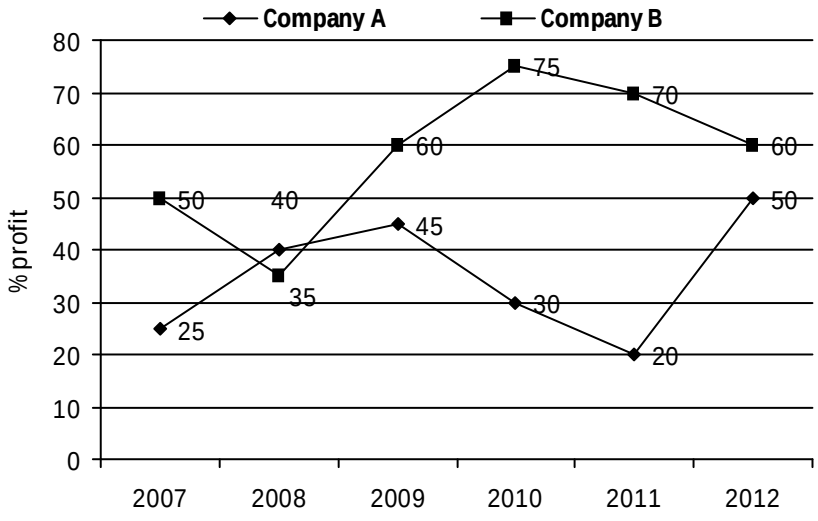
98. In which of the following years is the percentage increase in the profit of Company A the' highest over the preceding year?
(1) 2007 (2) 2009 (3) 2010 (4) 2011 (5) None of these

99. In which of the following year's is the difference between the income and the expenditure of Company B the maximum?
(1) 2006 (2) 2008 (3) 2011 (4) 2012 (5) None of these

100. If in the year 2008, the expenditure of Company A and the income of Company are Rs 84 lakh each, what is the difference (in Rs) between the income of Company A and the expenditure of Company B in that year?
(1) 48.6 lakh (2) 50.4 lakh (3) 51 lakh (4) 53.2 lakh (5) 57.6 lakh

Directions (Q. 101-105) : Following line graph shows the percentage profit gained by two companies A and B over the years 2007 to 2012.

$$\%\,\text{profit} = \frac{\text{Profit}}{\text{Expenditure}} \times 100$$



101. If the income of Company B in year 2008 was Rs 91.8 lakh, what was its expenditure (in Rs) in that year?
(1) 64 lakh (2) 68 lakh (3) 70 lakh (4) 72 lakh (5) 76 lakh

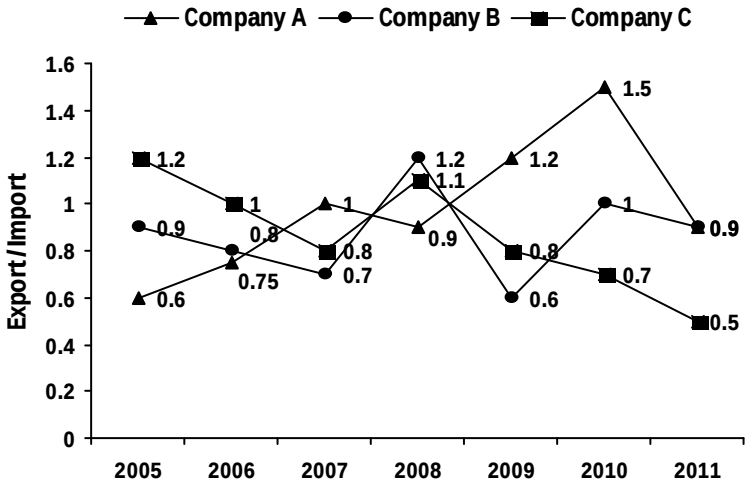
102. If the expenditure of Company A in the year 2010 and 2011 was in the ratio 6:5, what was the ratio of its incomes?
(1) 7 : 3 (2) 9 : 5 (3) 11 : 9 (4) 13 : 10 (5) None of these

103. If the expenditure of Company B in the year 2009 was Rs 40 lakh, what was its income (in Rs) in the year 2012?
(1) 60 lakh (2) 52 lakh (3) 70 lakh (4) 66.6 lakh (5) Data inadequate

104. The income of Company A in the year 2011 and the expenditure of Company B in the year 2008 was the same, that is Rs 90 lakh. What will be the ratio of the income of Company B in 2008 to the expenditure of Company A in the year 2011?
(1) 8 : 3 (2) 9 : 5 (3) 7 : 4 (4) 9 : 7 (5) 1 : 1

105. In which of the following years is the percentage of expenditure with respect to income 80% for Company A?
(1) 2007 (2) 2008 (3) 2009 (4) 2010 (5) 2011

Directions (Q. 106–110) : The following line graph shows the ratio of export to import of three companies A, B and C for the period 2005 to 2011.



106. If the export of Company A in year 2005 and that of Company B in year 2006 are 51 lakh and 54 lakh respectively, what is the difference between the import of A in 2005 and that of B in 2006?
(1) 12.5 lakh (2) 13 lakh (3) 15 lakh (4) 17.51akh (5) 18 lakh

107. If the import of Company A in year 2010 and the export of Company C in year 2011 are 64 lakh and 48 lakh respectively, what is the ratio of the export of A in 2010 to the import of Company C in 2011?
(1) 4 : 3 (2) 3 : 2 (3) 2 : 1 (4) 6 : 5 (5) 1 : 1

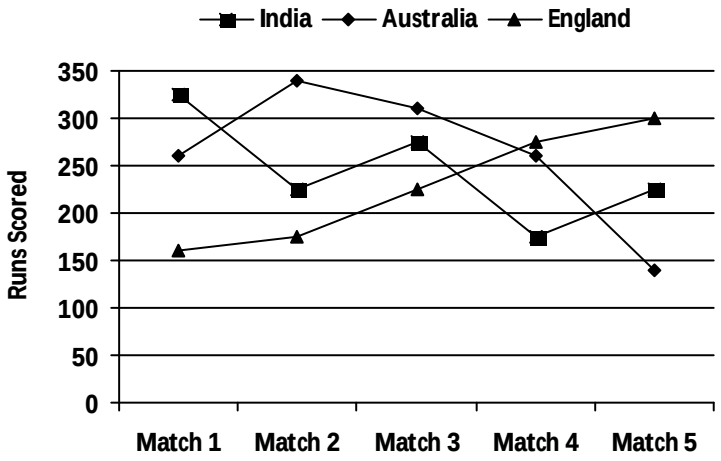
108. If the import of Company A in 2009 and the import of Company B in 2006 are equal and they are 55 lakh each, then the export of Company A in 2009 is approximately what per cent of the export of Company B in 2006?
(1) 66.66% (2) 78% (3) 112% (4) 140% (5) 150%

109. If the export of Company B in 2007 and the export of Company C in 2010 are 58.8 lakh and 56.7 lakh respectively, what is the difference between the import of Company B in 2007 and the import of Company C in 2010?
(1) 3 lakh (2) 4 lakh (3) 4.4 lakh (4) 6.2 lakh (5) 7.5 lakh

110. If in the year 2006 the export of Company A is increased by 200% and the import is increased by 50%, what will be the new ratio of export to import of Company A in 2006?
(1) 4 : 3 (2) 3 : 1 (3) 3 : 2 (4) 9 : 5 (5) 5 : 3

Directions (Q. 111-115) : Study the following graph carefully to answer the questions that follow:

Runs scored by three different teams in five different cricket matches.



111. The total runs scored by India and Australia in Match 4 together is approximately what percentage of the total runs scored by England in all the five matches together?
(1) 42 (2) 18 (3) 36 (4) 24 (5) 28

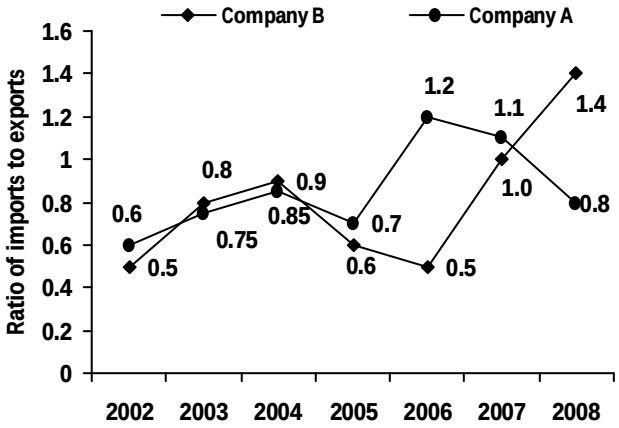
112. In which match is the difference between the runs scored by Australia and England the second lowest?
(1) Match 1 (2) Match 2 (3) Match 3 (4) Match 4 (5) Match 5

113. In which match are the total runs scored by India and England together the third highest/ lowest?
(1) Match 1 (2) Match 2 (3) Match 3 (4) Match 4 (5) Match 5

114. What is the ratio of the runs scored by India in Match 5, Australia in Match 1 and England in Match 2?
(1) 11 : 13 : 7 (2) 11 : 7 : 13 (3) 11 : 3 : 9 (4) 11 : 13 : 9 (5) None of these

115. What is the average runs scored by all the three teams in Match 3 together?
(1) 280 (2) 270 (3) 275 (4) 285 (5) None of these

Directions (Q. 116-120) : Study the given graph carefully and answer the following questions.
The graph shows the ratio of imports to exports of two Companies A and B over the years.



116. If the total imports of Company A in the year 2005 was Rs 53.9 lakh, what was its total exports (in Rs) in that year?
(1) 37.73 lakh (2) 47.8 lakh (3) 68.3 lakh (4) 77 lakh (5) None of these

117. The ratio of imports to exports of Company B in the year 2004 was what percentage more than that of Company A in the year 2008?
(1) 10% (2) 12.5% (3) 20% (4) 25% (5) None of these

118. If in the year 2003 the imports of Company A increased by $33\frac{1}{3}$% and exports decreased by 20%, then what would be the new ratio of imports to exports of Company A in that year?

(1) 0.8 (2) 0.6 (3) 1.2 (4) 1.25 (5) None of these

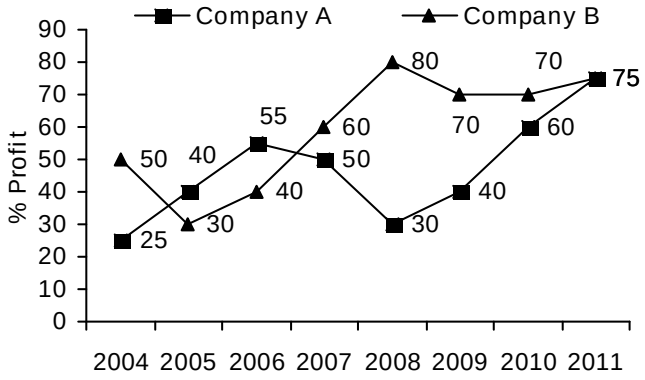
119. If the imports of Company A in the year 2008 and exports of B in the year 2004 were Rs 36 lakh and Rs 60 lakh respectively, then the imports of Company B in the year 2004 would be what percentage of the exports of Company A in the year 2008?

(1) 125% (2) 120% (3) 97.5% (4) 83.33% (5) 75%

120. In which of the following years was the value of exports less than the value of imports in the case of Company B?

(1) 2002 (2) 2006 (3) 2004 (4) 2007 (5) 2008

Directions (Q. 121-125) : The following graph shows the percentage profit of two companies A and B over the years. Study the graph carefully and answer following Questions.



121. If the income of Company B in, the year 2010 is Rs 136 lakh, then what is its total profit (in Rs) in the year 2010?

(1) 48 lakh (2) 56 lakh (3) 64 lakh (4) 72 lakh (5) 80 lakh

122. If the sum of the incomes of Company A in the year 2005 and the year 2009 together is Rs 171.5 lakh, then what is the total profit of Company A in the years 2005 and 2009 together?

(1) 42.5 lakh (2) 45 lakh (3) 47.5 lakh (4) 49 lakh (5) 52.5 lakh

123. If the income of Company A in the year 2011 was equal to the expenditure of Company B in the year 2004, then what was the ratio of the expenditure of Company A in 2011 to the income of Company B in 2004?

(1) 7 : 6 (2) 25 : 42 (3) 16 : 25 (4) 16 : 42 (5) None of these

124. If the expenditure of Company A in the year 2005 was equal to the income of Company B in the year 2008 and it was Rs 90 lakh, then the profit of Company A in the year 2005 is what per cent of the profit of Company B in the year 2008?

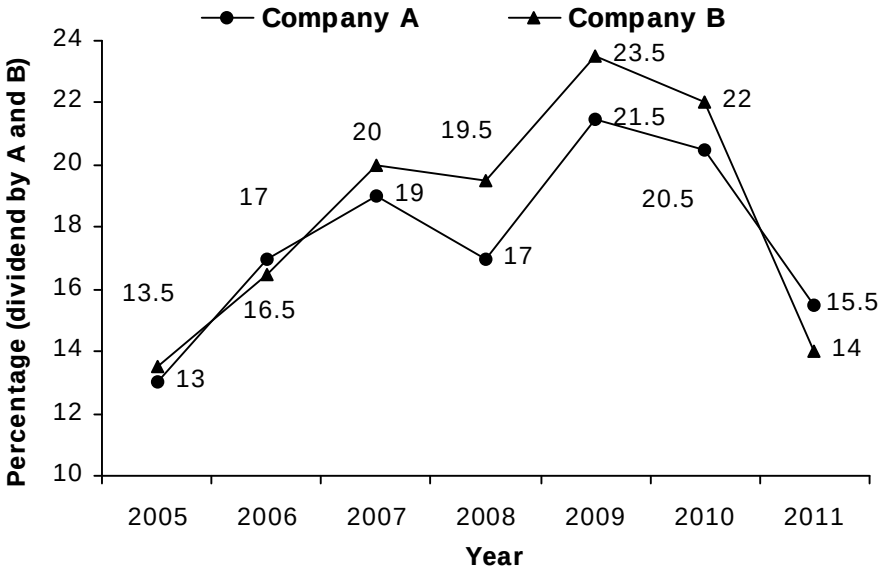
(1) 90% (2) 11.11% (3) 80% (4) 40% (5) 120%

125. For Company A, in which year is the per cent increase in profit over that of previous year the highest?

(1) 2005 (2) 2006 (3) 2009 (4) 2010 (5) 2011

Directions (Q. 126-130) : Study the following graph carefully to answer the questions given below:

Percentage annual dividend offered by two companies A and B over the years



126. Manav invested a total amount of ` 40000 in year 2005 for one year in two different companies together and got a total dividend of ` 5299. What was the amount invested in Company B?
(1) ` 20200 (2) ` 19800 (3) ` 31400
(4) Can't be determined (5) None of these

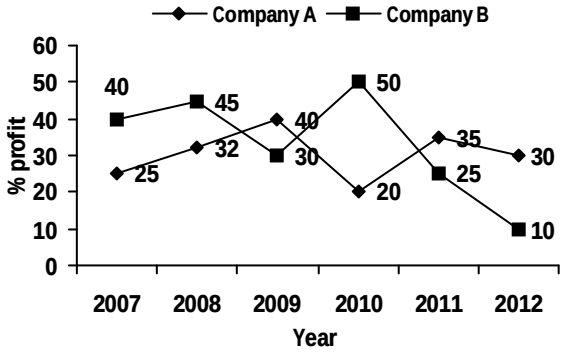
127. Priya invested `50000 in Company A in year 2009. After one year she transferred the entire amount with dividend to Company B for one year. What amount including dividend would she receive?
(1) ` 60750 (2) ` 61750 (3) ` 42750
(4) Can't be determined (5) None of these,

128. An amount of ` 3 7000 was invested in Company B in year 2007. After one year the same amount was reinvested for one year. What was the total dividend received at the end of two years?
(1) ` 17430 (2) ` 37312 (3) ` 14430 (4) ` 5305 (5) None of these

129. Rahul invested two different amounts in Company A and B in 2011 in the ratio of 7 : 9. What will be the ratio of dividends received from Company A and B?
(1) 31 : 36 (2) 36 : 31 (3) 35 : 32
(4) Can't be determined (5) None of these

130. Sukriti invested ` 75000 in Company A in the year 2010. How much more or less dividend would have she received had the amount been invested in Company B?
(1) ` 45221ess (2) ` 1011 less (3) `1 015 less (4) ` 1125 more (5) None of these

Directions (Q. 131-135) : The following graph shows the percentage profit earned by two companies A and B during 2007-2012.



131. If the expenditure of Company A in the year 2009 was ` 77.5 lakh what was its income (in `) in that year?
(1) 96 lakh (2) 102.4 lakh (3) 108.5 lakh (4) 112.5 lakh (5) None of these

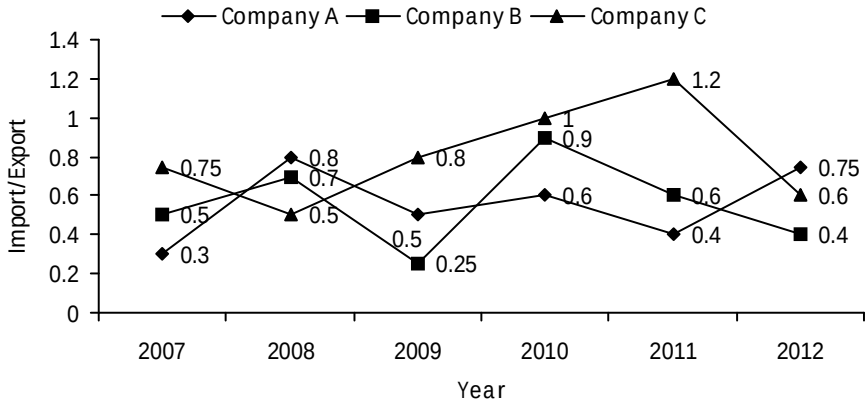
132. If the income of Company B in the year 2012 was ` 125.4 lakh what was its expenditure (in `) in that year?
(1) 94 lakh (2) 102 lakh (3) 108 lakh (4) 114 lakh (5) 117.5 lakh

133. If the expenditure of Company A in the year 2008 and the income of Company B in the year 2011 were equal to 85 lakh what was the difference between the profit of Company A in the year 2008 and the profit of Company B in the year 2011?
(1) 10.2 lakh (2) 11.4 lakh (3) 12.8 lakh (4) 15 lakh (5) 17.5 lakh

134. If the incomes of two Companies in the year 2010 were equal what was the ratio of their expenditures?
(1) 5 : 4 (2) 5 : 3 (3) 5 : 2 (4) 5 : 1 (5) None of these

135. If the income of Company A in the year 2010 and the expenditure of Company B in the year 2012 were equal and they were ` 171 lakh each, what was the difference between the income of Company B in the year 2012 and the expenditure of Company A in the year 2010?
(1) 41.2 lakh (2) 42.3 lakh (3) 43.4 lakh (4) 44.5 lakh (5) 45.6 lakh

Directions (Q. 136-140) : Following line graph shows the ratio of import to export of three companies over the period of 2007-2012.



136. If the import of Company A in the year 2007 was ` 23.58 lakh what was its export (in `) in that year?
(1) 70.74 lakh (2) 48.24 lakh (3) 70.74 lakh (4) 78.60 lakh (5) 81.5 lakh

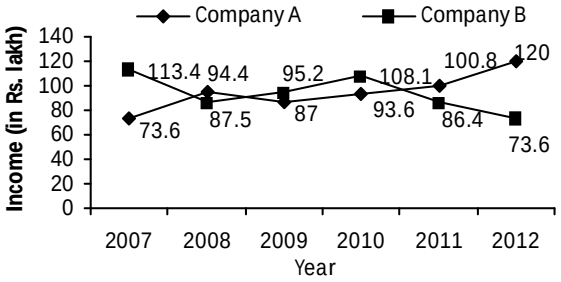
137. The ratio of import to export of Company A in the year 2012 is approximately what per cent of the ratio of import to export of Company C in the year 2011 ?
(1) 47.5% (2) 55% (3) 62.5% (4) 11.2% (5) 160%

138. If the export of Company A in the year 2012 and the import of Company C in the year 2009 were equal to ` 64 lakh each then the import of Company A in the year 2012 was approximately what per cent of the export of Company C in the year 2009?
(1) 20% (2) 40% (3) 60% (4) 80% (5) 100%

139. If the import of Company A and Company B in the year 2009 were ` 36 lakh and ` 27 lakh respectively what was the ratio of their exports in that year?
(1) 4:3 (2) 2:3 (3) 8:9 (4) 4:9 (5) 1:2

140. If the imports of Company C in year 2008 and 2012 were equal then the export of Company C in year 2008 was approximately what per cent of its export in year 2012?
(1) 40% (2) 60% (3) 80% (4) 100% (5) 120%

Directions (Q. 141-145): The following line-graph shows the income of two companies A and B over the period 2007 to 2012. Answer the given questions based on this graph.



141. If the percentage profit of Company A in the year 2007 was 15% what was its expenditure (in `) in that year?

(1) 60 lakh (2) 64 lakh (3) 68 lakh (4) 72 lakh (5) None of these

142. If the percentage profit of Company A in the year 2010 and that of Company B in the year 2011 was equal to 20%, what was the difference (in `) between the expenditure of Company A in the year 2010 and the expenditure of Company B in the year 2011 ?

(1) 4 lakh (2) 4.8 lakh (3) 5.4 lakh (4) 6 lakh (5) 6.5 lakh

143. If the expenditure of Company A and Company B were ` 75 land and ` 85 lakh respectively in the year 2009, what was the difference between their percentage profit in that year?

(1) 2% (2) 3% (3) 4% (4) 5% (5) 6%

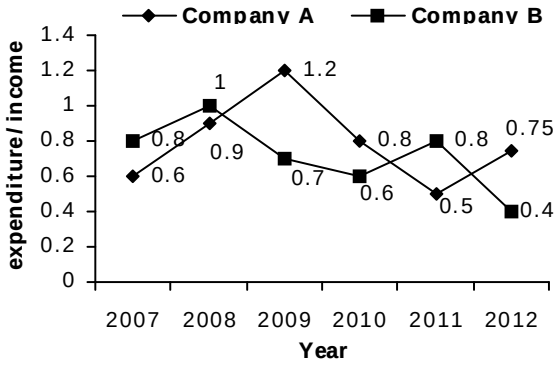
144. The income of Company A in the year 2010 was approximately what per cent of its income in the year 2012?

(1) 72% (2) 75% (3) 78% (4) 80% (5) 84%

145. If the percentage profit of Company A in the year 2011 and that of Company B in the year 2009 were equal to 12% each, what was the ratio of the expenditure of Company A in the year 2011 to the expenditure of Company B in the year 2009?

(1) 9 : 8 (2) 8 : 5 (3) 9 : 7 (4) 9 : 5 (5) None of these

Directions (Q. 146-150) : Following line-graph shows the ratio of expenditure to income of two companies A and B over the period of 2007 to 2012. Answer the given question based on this graph.



146. The ratio of expenditure to income of Company A in the year 2012 is-approximately what per cent of its ratio of expenditure to income in the year 2009?

(1) 60.5% (2) 62.5% (3) 72.5% (4) 52.25% (5) None of these

147. If the expenditure and income of Company B in the year 2009 are increased by 100% and 110% respectively, what will be its new ratio of expenditure to income in that year?

(1) 1 : 2 (2) 2 : 3 (3) 3 : 4 (4) 4 : 7 (5) 5 : 7

148. If the expenditure of Company B in the year 2009 was `14.7 lakh, what was its percentage profit that year? (Answer in approximate value)

(1) 32% (2) 37% (3) 40% (4) 43% (5) 44%

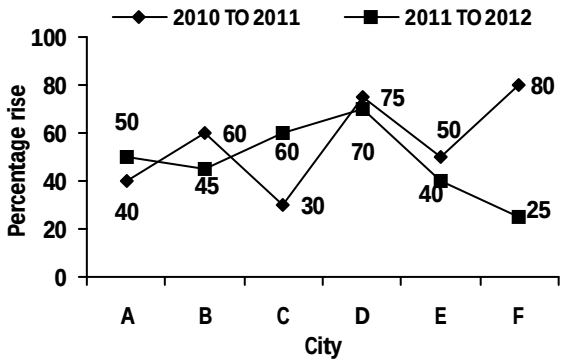
149. If the income of Company A in the year 2010 and the expenditure of Company B in the year 2007 were `18.5 lakh and `12.4 lakh respectively, what was the difference between their net profits?

(1) ` 60000 (2) ` 65000 (3) ` 70000 (4) ` 75000 (5) ` 80000

150. If the income of Company A in the year 2012 and the expenditure of Company B in the year 2011 were equal to ` 24 lakh then the profit of Company A in the year 2012 is approximately what per cent of the profit of Company B in the year 2011?

(1) 60% (2) 75% (3) 80% (4) 100% (5) 120%

Directions (Q. 151-155): The following graph shows the percentage rise in population of six different cities from 2010 to 2011 and 2011 to 2012.



151. If the population of City C was 4.5 lakh in the year 2010, what was its population in the year 2012?

(1) 5.85 lakh (2) 6.48 lakh (3) 7.42 lakh (4) 8.24 lakh (5) 9.36 lakh

152. The population of City D in the year 2010 was approximately what per cent of its population in the year 2011?

(1) 51% (2) 54% (3) 57% (4) 60% (5) 63%

153. If the rise in the population of City A from 2010 to 2012 was 2.75 lakh, what was its population in the year 2010?

(1) 2.4 lakh (2) 2.5 lakh (3) 2.8 lakh (4) 3 lakh (5) 3.2 lakh

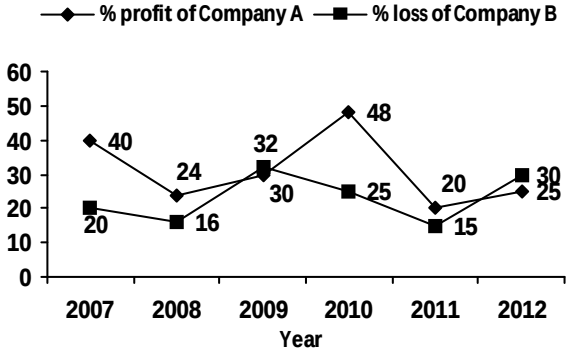
154. If the population of City E in the year 2010 was 3.2 lakh, what was its population in the year 2012?

(1) 5.48 lakh (2) 5.96 lakh (3) 6.24 lakh (4) 6.72 lakh (5) 7.12 lakh

155. In the year 2010, the population of cities B and F were equal, and the population of City F in the year 2012 was 5.4 lakh. What was the population of City B in the year 2012?

(1) 5.248 lakh (2) 5.568 lakh (3) 5.842 lakh (4) 6.214 lakh (5) 6.412 lakh

Directions (Q. 156-160): The following line graph shows the percentage profit of company A and the percentage loss of company B over the years. Answer the following questions based on this information.



156. If the expenditures of Company A and B are equal in the year 2008, and they are ?75 lakh each, what is the difference between the income of Company A and the income of Company B in that year?

(1) `24 1akh (2) `30 1akh (3) `36 1akh (4) `40 lakh (5) `44 1akh

157. If the incomes of Company A in the year 2007 and 2011 are equal and they are `84 lakh each, what is the difference between its expenditures in the year 2011 and 2007?

(1) `10 1akh (2) `12 1akh (3) `14 lakh (4) `16 1akh (5) `18 lakh

158. If the expenditure of Company A in the year 2012 and Company B in the year 2010 are equal, what is the ratio of the income of Company B in year 2010 to the income of Company A in year 2010?

(1) 1:1 (2) 2:5 (3) 3:5 (4) 4:5 (5) None of these

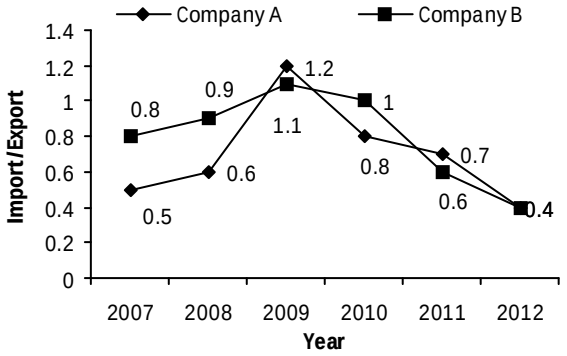
159. What is the percentage increase in the percentage profit of Company A from year 2008 to 2009?

(1) 6% (2) 20% (3) 24% (4) 25% (5) 27%

160. If the expenditure of Company A in the year 2008 and 2010 are `55 lakh and `35 lakh respectively then what is the profit of Company A in the year 2008 and 2010 together?

(1) ` 24 1akh (2) ` 28 1akh (3) ` 30 1akh (4) ` 32 lakh (5) ` 36 1akh

Directions (Q. 161-165): The following graph shows the ratio of imports to exports by two companies over the years.



161. If the export of Company A in the year 2008 was `105 lakh and the import of Company B in the year 2007 was `72 lakh, the import of Company A in the year 2008 is approximately what per cent of the export of Company B in the year 2007?

(1) 60% (2) 70% (3) 80% (4) 90% (5) None of these

162. If the import of Company A is increased by 50% and the export is decreased by 20% in the year 2010, what will be the new ratio of import to export of Company A in that year?

(1) 5:4 (2) 4:3 (3) 3:2 (4) 2:1 (5) None of these

163. If the import of Company A in the year 2010 and the export of Company B in the year 2011 are equal, what will be the ratio of the export of Company A in the year 2010 to the import of Company B in the year 2011 ?

(1) 2:5 (2) 3:5 (3) 4:5 (4) 6:5 (5) None of these

164. The ratio of import to export of Company A in the year 2011 is what per cent of the ratio of import to export of Company B in the year 2012?

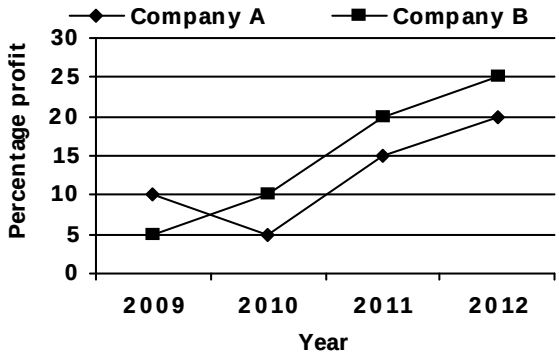
(1) 75% (2) 125% (3) 175% (4) 225% (5) None of these

165. If the import of Company A in the year 2010 and the import of Company B in the year 2008 are equal and they are `108 lakh each then the export of Company A in the year 2010 is what per cent of the export of Company B in the year 2008?

(1) 88.88% (2) 112.5% (3) 120% (4) 127.5% (5) 150%

Directions (Q. 166-170) : Study the graph carefully to answer the questions that follow:

$$\text{Profit\%} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$



166. If the income of Company A in the year 2009 is `440 crore, what is the expenditure (in `) of Company A in that year?

(1) 330cr (2) 450cr (3) 400cr (4) 225 cr (5) None of these

167. In which year is the ratio of expenditure to income of Company A the highest?

(1) 2009 (2) 2011 (3) 2010 (4) 2012 (5) Can't be determined

168. If the sum of income of Company A in the year 2009 and that of Company B in the year 2010 is `880 crore, find the sum of expenditures of Company A in the year 2009 and Company B in the year 2010.

(1) 775cr (2) 830cr (3) 800cr (4) 625 cr (5) Can't be determined

169. If the income of Company A in the year 2009 and the expenditure of Company B in the year 2012 are equal and the income of Company B in the year 2012 is ` 250 crore, then the expenditure of Company A in the year 2009 is approximately what per cent of the expenditure of Company B in the year 2012?

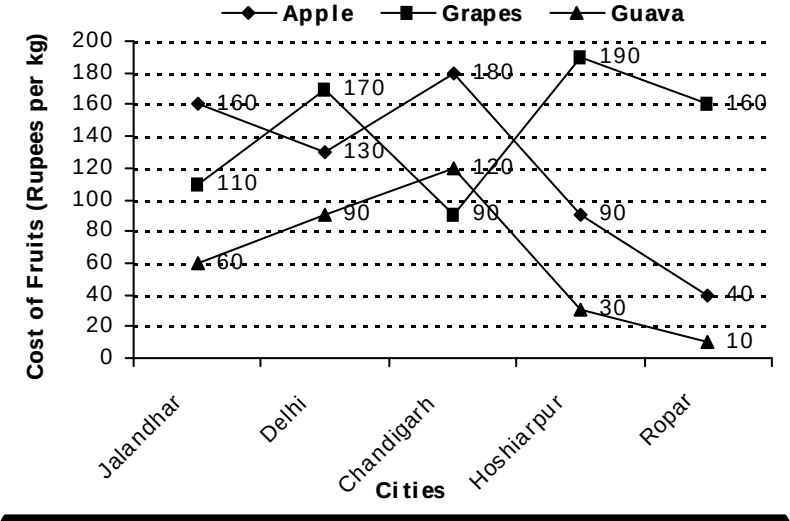
(1) 98% (2) 89% (3) 75% (4) 91% (5) None of these

170. If the ratio of expenditure of Company A in the year 2009 to that of Company B is 5 : 11, what is the ratio of their incomes in that year?

(1) 3:5 (2) 2:3 (3) 2:5 (4) 5 :2 (5) None of these

Directions (Q. 171-175) : Study the following graph carefully to answer the questions that follow:

Cost of three different fruits (in rupees per kg) in five different cities



171. In which city is the difference between the cost of one kg of apple and the cost of one kg of guava the second lowest?
(1) Jalandhar (2) Delhi (3) Chandigarh (4) Hoshiarpur (5) Ropar

172. The cost of one kg of guava in Jalandhar is approximately what per cent of the cost of two kg of grapes in Chandigarh?
(1) 66 (2) 24 (3) 28 (4) 34 (5) 58

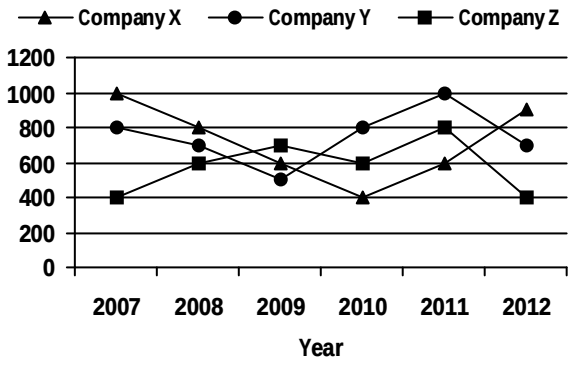
173. What total amount will Ram pay to the shopkeeper for purchasing 3 kg of apples and 2 kg of guavas in Delhi?
(1) `530 (2) `450 (3) `570 (4) `620 (5) `490

174. Ravinder had to purchase 45 kg of grapes from Hoshiarpur. The shopkeeper gave him a discount of 4% per kg. What amount did he pay to the shopkeeper after the discount?
(1) `8208 (2) `8104 (3) `8340 (4) `8550 (5) `8410

175. What is the ratio of the cost of one kg of apples from Ropar to the cost of one kg of grapes from Chandigarh?
(1) 3 : 2 (2) 2 : 3 (3) $2^2 : 3^2$ (4) $4^2 : 9^2$ (5) $9^2 : 4^2$

Directions (Q. 176-180): Study the following graph care-fully to answer these questions:

Quantity of rice (in thousand tonnes) exported by three companies over the years



176. What is the percentage increase in export of Company Y from 2009 to 2012?
(1) 55% (2) 40% (3) 60% (4) 50% (5) None of these

177. What is the ratio of the total export of all the three companies from 2008 to 2012?
(1) 1:6 (2) 6:7 (3) 4:1 (4) 4:4 (5) None of these

178. The percentage decrease in export from previous years was the maximum during which of the following years for Company X?
(1) 2008 (2) 2010 (3) 2009 (4) 2011 (5) None of these

179. What are the average exports of Company Y in all the years (in thousand tonnes)?
(1) 650 (2) 850 (3) 750 (4) 800 (5) None of these

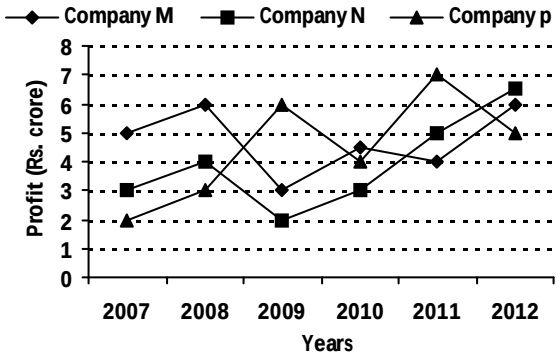
180. Total export of Company Z in all the years is approximately what per cent of the total export of Company Y in all the years?
(1) 66% (2) 82% (3) 78% (4) 76% (5) None of these

Directions: (Q. 181-185): Study the following information and answer the questions that follow:

[redacted]

The graph given below represents the profit (in lakh) of three companies M, N and P.

Profit = Income - Expenditure



181. In 2010, the profit of Company M is what percentage of the total profit of Company P and Company N together?

(1) 64.28% (2) 65.71% (3) 66.28% (4) 63.11% (5) 62.58%

182. If the expenditures of Company M and Company P in the year 2011 are `75 crore and `68 crore respectively, what is the ratio of the income of Company M to that of Company P?

(1) 74 : 71 (2) 81 : 79 (3) 82 : 75 (4) 79 : 75 (5) 79 : 71

183. What is the average income of all three companies in the year 2012, if the expenditure is 50%, 60% and 80% more than the profits of Company M, N and P respectively?

(1) `16.4 crore (2) `15.3 crore (3) `17.5 crore (4) `14.3 crore (5) `14.7 crore

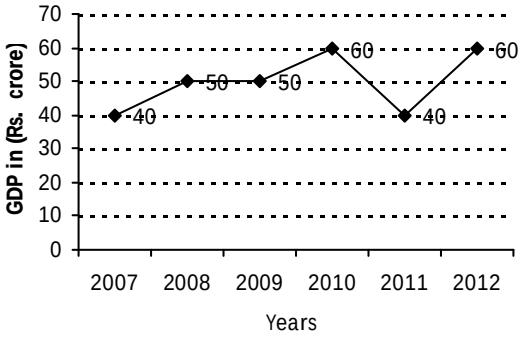
184. What is percentage increase in the profit of Company N from 2009 to 2012?

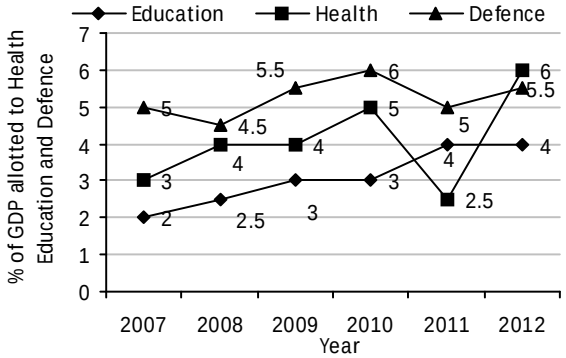
(1) 230% (2) 240% (3) 225% (4) 220% (5) 215%

185. In the year 2010, the income of Company P is `40 crore. If the income of Company M is 20% more than that of Company P in that year, what is the expenditure of Company M in the year 2010?

(1) `45.5 crore (2) `46.5 crore (3) `47.9 crore (4) `41.5 crore (5) `43.5 crore

Directions (Q. 186-191): Study the following line graph carefully and answer the questions given below. ?





186. In 2010, what is the ratio of amount spent on Defence to Education to Health?

(1) 3:5:6 (2) 4:5:6 (3) 3:4:6 (4) 4:3:6 (5) 3:2:5

187. The GDP growth from 2007 to 2008 is what per cent of the GD Pgrowth from 2011 to 2012?

(1) 42% (2) 44% (3) 46% (4) 48% (5) 50%

188. What is the total amount (in `) allotted to Defence during 2007-12?

(1) 17.5cr (2) 15.9cr (3) 16.8cr (4) 18.8cr (5) 19.4cr

189. In which of the following years is the total amount allotted to Education, Health and Defence the maximum?

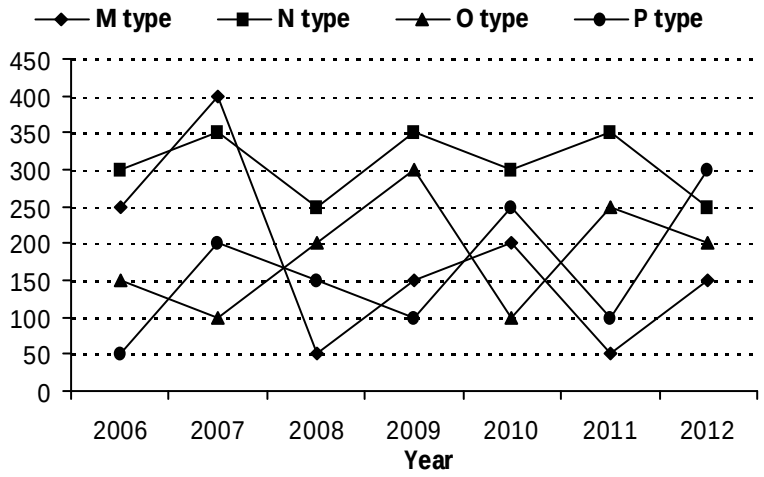
(1) 2012 (2) 2011 (3) 2010 (4) 2009 (5) 2008

190. What is the difference between the amount allotted to Education in 2009 and that in 2010?
(1) 34 lakh (2) 27 lakh (3) 32 lakh (4) 30 lakh (5) 28 lakh

191. Has the amount allotted to Education in 2010 remained the same in 2011 or increased or decreased? If it has increased or decreased, then by what per cent?
(1) Increased by 35.5% (2) Decreased by 33.3% (3) Increased by 37.7%
(4) Decreased by 31.1% (5) None of these

Directions (Q. 192-196): Answer the following questions based on the given graph:

In the line graph the prices (in `) of four types of tile M, N, O, P respectively are given for different years.



192. Which type of tiles shows the maximum percentage increase in the price over the given period?
(1) M (2) N (3) O (4) P (5) Both O and P

193. Which type of tiles shows the maximum average price over the years?
(1) M (2) N (3) O (4) P (5) Both M and N

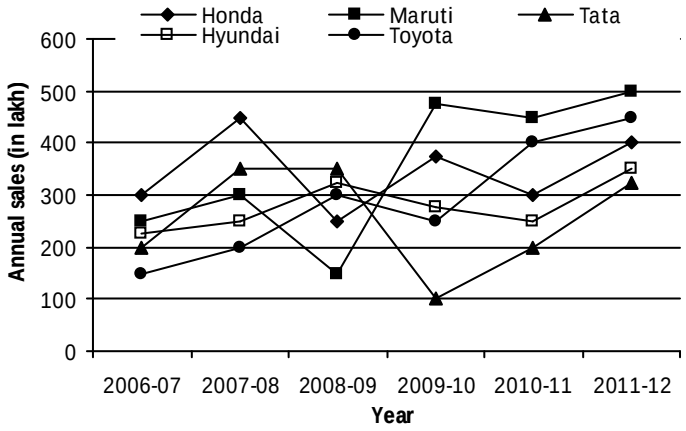
194. In which year is the average price of all four types of tiles the minimum?
(1) 2006 (2) 2008 (3) 2010 (4) 2011 (5) 2012

195. Total price of all four types of tiles in 2012 is what per cent more or less than the total price of all four types of tiles in 2009?
(1) 1% (2) 2% (3) 0% (4) 4% (5) 6%

196. What is the ratio of the price of tiles O in 2008 to that of tiles P in 2010?
(1) 2:1 (2) 4:3 (3) 3:4 (4) 5:2 (5) 4:5

Directions (Q. 197-201): Study the line graph and answer the questions given below:

The graph shows sales of four-wheelers of different companies in India for FY 2006-07 to 2011-12.



197. What is the percentage increase in annual sales of all companies put together from FY 2006-07 to 2011 -12?
(1) 68% (2) 78.51% (3) 80% (4) 82.22% (5) 14.91%

198. Which company recorded the highest percentage increase in sale from FY 2006-07 to 2011 -12?
(1) Honda (2) Hyundai (3) Maruti (4) Toyota (5) Tata

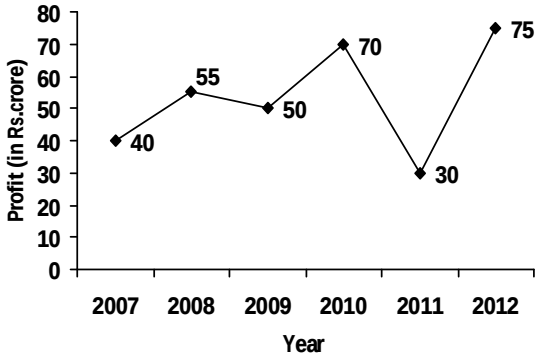
199. In which FY is the average sales of all the companies the minimum?
(1) 2007-08 (2) 2006-07 (3) 2010-11 (4) 2011-12 (5) 2008-09

200. The total sale of Hyundai and Maruti is what per cent more or less than the total sale of Tata and Honda in FY 2006-07?
(1) 4% less (2) 5% more (3) 5% less (4) 4% more (5) 2% less

201. The total sale of Honda is what per cent more than the total sale of Toyota for FY 2009-10?
(1) 71% (2) 70% (3) 49% (4) 50% (5) 25%

Directions (Q. 202-206): Study the following graph carefully to answer the questions that follow:

Profit earned by a company over the years



202. If the income of the company in the year 2010 was `120 crore, what was the percentage profit of the company in the year 2010?
(1) 100% (2) 120% (3) 133% (4) 125% (5) 140%

203. If the expenditure of the company in the year 2011 was `85 crore, what was the ratio of income to expenditure of the company in that year?
(1) 23:17 (2) 5:4 (3) 11:8 (4) 21:16 (5) None of these

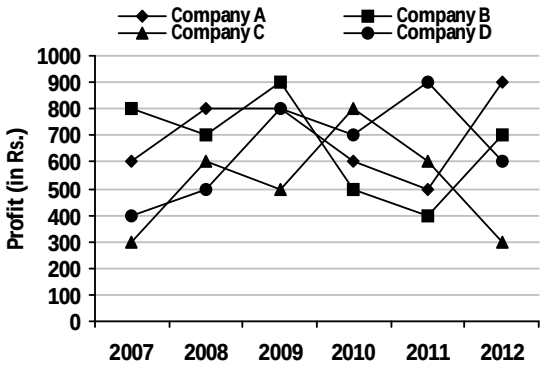
204. What is the approximate average profit (in ` crore) earned by the company over the years?
(1) 50 (2) 48 (3) 53 (4) 57 (5) 61

205. If the income of the company in the year 2007 was `950000000, what was the expenditure (in ?) of the company in that year?
(1) 50000000 (2) 550000000 (3) 40000000 (4) 350000000 (5) None of these

206. What is the percentage increase in the profit of the company in the year 2010 from the previous year?
(1) 43% (2) 46% (3) 50% (4) 40% (5) None of these

Directions (Q. 207-211): Study the following graph carefully to answer the given questions. The graph shows the profit of companies A, B, C and D in various years

$$\% \text{ Profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$



207. If the income of Company A in the year 2009 is `25000 and that in the year 2012 is `32000 then what is the average expenditure for the year 2009 and 2012?
(1) `29540 (2) `22790 (3) `27650 (4) `31320 (5) `19460

208. What is the ratio of the percentage profit of Company C in the year 2010 to that of Company B in the year 2012 if the income is `45000 and `65000 of Company C in the year 2010 and Company B in the year 2012 respectively?
(1) 8:7 (2) 5:3 (3) 13:12 (4) 2:7 (5) 2:3

209. If in the year 2009 incomes of both the companies A and B are the same ie `10000, what was the ratio of their expenditures in that year?
(1) 103:22 (2) 42:47 (3) 13:77 (4) 92:91 (5) 5:3

210. What is the percentage increase in profit of Company C in the year 2008 from the previous year?
(1) 12% (2) 105% (3) 92% (4) 89% (5) 100%

211. What is the ratio of the income of Company A to that of Company D in the year 2011, if their expenditures are `15000 and `22000 respectively?
(1) 155:229 (2) 3:5 (3) 16:19 (4) 239:331 (5) 65:189

SHORT ANSWER

1. (2)	2. (3)	3. (2)	4. (4)	5. (1)	6. (2)	7. (4)	8. (1)
9. (5)	10. (3)	11. (4)	12. (5)	13. (1)	14. (4)	15. (2)	16. (3)
17. (2)	18. (1)	19. (5)	20. (3)	21. (4)	22. (5)	23. (1)	24. (4)
25. (1)	26. (2)	27. (3)	28. (2)	29. (1)	30. (4)	31. (3)	32. (5)
33. (2)	34. (1)	35. (3)	36. (2)	37. (4)	38. (3)	39. (2)	40. (2)
41. (3)	42. (2)	43. (3)	44. (4)	45. (2)	46. (3)	47. (1)	48. (3)
49. (4)	50. (1)	51. (4)	52. (4)	53. (5)	54. (2)	55. (3)	56. (2)
57. (3)	58. (1)	59. (2)	60. (2)	61. (2)	62. (3)	63. (5)	64. (4)
65. (1)	66. (1)	67. (4)	68. (3)	69. (1)	70. (4)	71. (1)	72. (5)
73. (1)	74. (3)	75. (2)	76. (1)	77. (3)	78. (5)	79. (4)	80. (1)
81. (1)	82. (4)	83. (2)	84. (5)	85. (1)	86. (4)	87. (2)	88. (3)
89. (5)	90. (3)	91. (2)	92. (5)	93. (4)	94. (2)	95. (5)	96. (2)
97. (4)	98. (2)	99. (5)	100. (4)	101. (2)	102. (4)	103. (5)	104. (2)
105. (1)	106. (4)	107. (5)	108. (5)	109. (1)	110. (3)	111. (3)	112. (3)
113. (1)	114. (4)	115. (2)	116. (4)	117. (2)	118. (4)	119. (2)	120. (5)
121. (2)	122. (4)	123. (4)	124. (1)	125. (1)	126. (2)	127. (5)	128. (3)
129. (1)	130. (4)	131. (3)	132. (4)	133. (1)	134. (1)	135. (5)	136. (4)
137. (3)	138. (3)	139. (2)	140. (5)	141. (2)	142. (4)	143. (3)	144. (3)
145. (5)	146. (2)	147. (2)	148. (4)	149. (1)	150. (4)	151. (5)	152. (3)
153. (2)	154. (4)	155. (2)	156. (2)	157. (1)	158. (3)	159. (4)	160. (3)
161. (2)	162. (3)	163. (5)	164. (3)	165. (2)	166. (3)	167. (3)	168. (3)
169. (4)	170. (3)	171. (2)	172. (4)	173. (3)	174. (1)	175. (3)	176. (2)
177. (1)	178. (2)	179. (3)	180. (3)	181. (1)	182. (4)	183. (2)	184. (3)
185. (5)	186. (1)	187. (5)	188. (2)	189. (1)	190. (4)	191. (2)	192. (4)
193. (2)	194. (2)	195. (3)	196. (5)	197. (3)	198. (4)	199. (2)	200. (3)
201. (4)	202. (5)	203. (1)	204. (3)	205. (2)	206. (4)	207. (3)	208. (2)
209. (4)	210. (5)	211. (1)					

DETAIL - EXPLANATIONS

1. 2; $\%\ \text{Profit}_{2008} = 48\%$,
Expenditure = 55.5 lakh

$\therefore$ Income = $55.5 \times \frac{(100+48)}{100}$

$= 55.5 \times 1.48 = 82.14$

2. 3; $\%\ \text{Profit}_{2008} = 40\%$
$\%\ \text{Profit}_{2009} = 45\%$

$\therefore\ \%\ \text{Rise} = \frac{(45-40)}{40} \times 100 = \frac{500}{40} = 12.5\%$

3. 2; % profit of A in 2006 and % profit of C in 2010 are equal and are 40%,

$\therefore$ Total income = $94 \times \frac{(100+40)}{100}$

$= 94 \times 1.4 = 131.6$ lakh

4. 4; $\%\ \text{Profit}_A = 40\%$
and Income_A = 91 lakh

$\therefore\ \text{Expenditure}_A = 91 \times \frac{100}{140} = 65$ lakh

$\%\ \text{Profit}_B = 50\%$, Expenditure_B = 91 lakh

$\therefore\ \text{Income}_B = 91 \times \frac{150}{100} = 136.6$ lakh

$\therefore$ Diff = 136.5 - 65 = 71.5 lakh

5. 1; Let $\text{Expenditure}_B = \text{Income}_c = x$

$\therefore\ \text{Income}_B = x \times \frac{(100+60)}{100} = \frac{8x}{5}$

$\text{Expenditure}_c = x \times \frac{100}{100+25} = \frac{4x}{5}$

$\therefore$ Reqd ratio = $\frac{\text{Income}_B}{\text{Expenditure}_c}$

$= \frac{8x}{5} \times \frac{5}{4x} = \frac{2}{1}$

6. 2; P_{2008} = 4.8 lakh, P_{2010} = 6.4 lakh
$\therefore$ Reqd % = $\frac{6.4-4.8}{4.8} \times 100 = \frac{160}{4.8} \approx 33.33\%$

7. 4; $\text{Literate}_{A\text{-}2008} = 3.6 \times \frac{57.8}{100} = 2.0808$ lakh

$\text{Literate}_{A\text{-}2010} = 5.4 \times \frac{62.3}{100} = 3.3642$ lakh

$\therefore$ Total = 2.0808 + 3.3642 = 5.445 lakh

8. 1; Illiterate_G - Illiterate_F

$= 7.5 \times \frac{(100-68.9)}{100} - 6.4 \times \frac{(100-65.8)}{100}$

Diff = 2.3325 - 2.1888 = 0.1437 lakh

9. 5; $E_{2008} = 5.5 \times \frac{67.7}{100} = 3.7235$ lakh

$E_{2010} = 7.2 \times \frac{71}{100} = 5.112$ lakh

$\therefore$ Reqd % = $\frac{5.112-3.7235}{3.7235} \times 100$

$= 37.29 \approx 37.3\%$

10. 3; Total population = 5.2 lakh
Percentage of literates = 64.5%
$\therefore$ Percentage of illiterates
= 100 - 64.5 = 35.5%
$\therefore$ Diff = 64.5 - 35.5 = 29%

$\therefore$ Reqd answer = $5.2 \times \frac{29}{100} = 1.508$ lakh

11. 4; $E_A = 52.49 \times \frac{100}{145} = 36.2$ lakh

$E_B = 61.2 \times \frac{100}{136} = 45$ lakh

$\therefore$ Total expenditure = 36.2 + 45 = 81.2 lakh

12. 5; $I_A = 48.5 \times \frac{132}{100} = 64.02$ lakh

$E_B = 75.04 \times \frac{100}{140} = 53.61$akh

Diff = 64.02 - 53.6 = 10.42 lakh

13. 1; Since their profit % is same, ie 40%, total expenditure = $133 \times \frac{100}{140} = 95$ 1akh

14. 4; $\%P_A = 25\%$ and $\%P_B = 50\%$
Let $E_{A\text{-}20O6} = I_{B\text{-}2008} = x$

$\therefore I_A = x \times \frac{125}{100} = \frac{5x}{4}$, $\therefore E_B = x \times \frac{100}{150} = \frac{2x}{3}$

$\therefore \frac{E_B}{I_A} = \frac{2x}{3} \times \frac{4}{5x} = \frac{8}{15}$

15. 2; $\%P_{A\text{-}2009} = 60\%$ and $\%P_{B\text{-}2005} = 48\%$
Let $E_A = E_B = x$

$\therefore I_A = x \times \frac{160}{100}$ and $I_B = x \times \frac{148}{100}$

$\therefore$ Reqd % = $\frac{\frac{148x}{100}}{\frac{160x}{100}} \times 100 = \frac{14800}{160} = 92.5\%$

16. 3; Total pens produced
= 40 + 55 + 50 + 90 + 75 = 310 thousand

Avg production = $\frac{310}{5}$ = 62 thousand

Total pens sold = 30 + 40 + 25 + 60 + 50
= 205 thousand

Avg of pens sold = $\frac{205}{5}$ = 41 thousand

Reqd % = $\frac{41}{62} \times 100 = 66.129 = 66\%$

17. 2; Cost price per pen = 4.50
Selling price per pen = 8
$\therefore$ Profit per pen = 3.50
Total number of pens sold = 30000
$\therefore$ Net profit = 30000 × 3.50 = 1.05 lakh

18. 1; Total amount = 8 × 30000 + 10 × 40000 + 22 × 25000 + 25 × 60000 + 40 × 50000
= 240000 + 400000 + 550000 + 1500000
= 46.9 lakh

19. 5; Manufacturing cost of type C = 15
Selling price of type C = 22
$\therefore$ Profit per pen = 7
$\therefore$ Total profit of type C = 25000 × 7
= 175000
Similarly,
Total profit of type D = 60000 × 10 = 600000
$\therefore$ Total profit = 7.75 lakh

20. 3; $Profit_B$ = 40000 (10 - 5.5) = , 180000
$Profit_E$ = 50000 (40 - 25) = 750000

Reqd % = $\frac{180000}{750000} \times 100 = 24\%$

21. 4; $\frac{I_B}{E_B} = 1.05$,

$\frac{I_A}{E_A} = 0.75$

$\therefore$ Reqd% = $\frac{1.05}{0.75} \times 100$

$= \frac{105}{0.75} = 140\%$

22. 5; Exports of B in year 2008 cannot be determined.

23. 1; $\because$ The ratio of imports to exports is the same for Company A in year 2007 and Company B in year 2004 the sum of their imports will be
$(I_A + I_B) = 0.8 \times (E_A + E_B) = 0.8 \times 180 = 144$ lakh

24. 4; $\frac{I_A}{E_A} = 0.75$

$\therefore I_A = 0.75 \times E_A$
= 0.75 × 120 = 90 lakh

$\frac{I_B}{E_B} = 0.6$

$\therefore E_B = \frac{I_B}{0.6} = \frac{120}{0.6}$
= 200 lakh
$\therefore$ Diff = 200 - 90 = 110 lakh

25. 1; $\frac{I_A}{E_A} = 0.5$

$E_A = \frac{I_A}{0.5} = \frac{80}{0.5} = 160$ lakh

$\frac{I_B}{E_B} = 1.2$

$\therefore I_B = 1.2 \times 60 = 72$ lakh

$\therefore$ Reqd% = $\frac{72}{160} \times 100 = 45\%$

26. 2; P_{1990} = 12 lakh,

$P_{2010} = 12 \times \frac{(100+75)}{100} \times \frac{(100+55)}{100}$

P_{2010} = 12 × 1.75 × 1.55 = 32.55 lakh

27. 3; Suppose the population in year 2000 was x.
$\therefore$ Its population in year 2010

$= x \times \frac{160}{100} = \frac{8x}{5}$

$\therefore$ Reqd % = $\frac{x}{(8x/5)} \times 100$

$= x \times \frac{5}{8x} \times 100 = 62.5\%$

28. 2; A_{2010} = 37.7 lakh

$A_{1990} = 37.7 \times \frac{100}{145} \times \frac{100}{130} = 20$ lakh

$\therefore B_{1990} = A_{1990} = 20$ lakh

$\therefore B_{2010} = 20 \times \frac{140}{100} \times \frac{150}{100} = 42$ lakh

29. 1; $C_{2010}0 = 27.2 = D_{2000}$

$\therefore C_{1990} = 27.2 \times \frac{100}{170} \times \frac{100}{160} = 10$ lakh

$D_{1990} = 27.2 \times \frac{100}{136} = 20$ lakh

$\therefore$ Reqd% = $\frac{10}{20} \times 100 = 50\%$

30. 4; Let the population of E in 1990 be 100.

$\therefore E_{2010} = 100 \times \frac{150}{100} \times \frac{140}{100} = 210$

$\therefore$ Reqd fraction = $\frac{100}{210} = \frac{10}{21}$

31. 3; Reqd % = $\frac{60-45}{45} \times 100 = \frac{1500}{45} = \frac{100}{3}$

$= 33\frac{1}{3}\%$

32. 5; Let the incomes of A and B each be x in the year 2007.

$\therefore E_A = \frac{x \times 100}{100+60} = \frac{5x}{8}$, $E_B = \frac{x \times 100}{100+50} = \frac{2x}{3}$

$\therefore$ Ratio = $\frac{5x}{8} \times \frac{3}{2x} = \frac{15}{16}$

33. 2; I_A = 90 lakh

$\therefore E_A = \frac{90 \times 100}{100+25} = 72$ lakh

E_B = 90 lakh

$\therefore I_B = 90 \times \frac{100+20}{100} = 108$ lakh

$\therefore$ Diff = 108 - 72 = 36 lakh

34. 1; I_A = 98

$\therefore E_A = 98 \times \frac{100}{100+40} = 70$ 1akh

$E_B = 85$

$\therefore I_B = 85 \times \frac{100+40}{100} = 119$ lakh

$\therefore$ Sum = 70 + 119 = 189 lakh

35. 3; Let the expenditure of B be x.

$\therefore$ Income = $x \times \frac{160}{100} = \frac{8x}{5}$

$\therefore$ Reqd % = $\frac{x}{8x/5} \times 100$

$= \frac{100x \times 5}{8x} = 62.5\%$

36. 2; $\because \frac{I}{E} = 0.6$

$= \frac{39.72}{0.6} = 66.2$ crore

37. 4; $\frac{I_A}{E_A} = 0.5$

$\therefore I_A = 0.5 \times 96.4 = 48.2$ crore

$\frac{I_B}{E_B} = 0.9$

$\therefore I_B = 0.9 \times 96.4 = 86.76$ crore

$\therefore$ Diff = 86.76 - 48.2 = 38.56 crore

38. 3; $\frac{I_A}{E_A} = 0.75$,

$E_A = \frac{I_A}{0.75} = 84.8$ crore

$\frac{I_B}{E_B} = 0.8$,

$E_B = \frac{I_B}{0.8} = \frac{62.8}{0.8} = 78.5$ crore

$\therefore$ Sum = 84.8 + 78.5 = 163.3 crore

39. 2; $\frac{I_B}{E_B} = 0.55$, $\frac{I_A}{E_A} = \frac{0.4}{}$

$\therefore$ Reqd % = $\frac{0.55}{0.4} \times 100 = 137.5\%$

40. 2; $\frac{I}{E} = 0.8 = \frac{4}{5}$

$I_1 = 4 + \frac{25}{100} \times 4 = 5$

$E_1 = 5 \pm 5 \times \frac{50}{100} = 2.5$

$\therefore$ Ratio = $\frac{I_1}{E_1} = \frac{5}{2.5} = 2.0$

41. 3; In 2006, let the expenditure be x. So, its income will be $x \times \frac{100+60}{100} = \frac{8x}{5}$

$\therefore$ Reqd% = $\frac{x}{(8x/5)} \times 100 = x \times \frac{5}{8x} \times 100$

= $\frac{500}{8}$ = 62.5%

42. 2; Since, percentage profit is same for A in 2008 and B in 2004,

$\therefore$ Sum of income = 175 × $\frac{140}{100}$ = 245 lakh

43. 3; Let $E_A = E_B = x$

$\because$ $\%P_A = 60\%$ and $\%P_B = 40\%$

$\therefore I_A = x \times \frac{160}{100} = \frac{8x}{5}$, $I_B = x \times \frac{140}{100} = \frac{7x}{5}$

$\therefore$ Reqd % = $\frac{7x}{5} \times \frac{5}{8x} \times 100 = 87.5\%$

44. 4; $E_A = I_B$ = 116 1akh

$\%P_A = 45\%$, $\%P_B = 45\%$

$\therefore I_A = 116 \times \frac{145}{100} = 168.2$ lakh

$E_B = 116 \times \frac{100}{145} = 80$ lakh

$\therefore$ Diff = 168.2 - 80 = 88.2 lakh

45. 2; I_A = 112 lakh $\%P_A = 60\%$

$\therefore E_A = 112 \times \frac{100}{160} = 70$ lakh

E_B = 56 lakh, $\%P_B = 75\%$ $\therefore I_B = 56 \times \frac{175}{100} = 98$ lakh

$\therefore$ Ratio = $\frac{70}{98} = \frac{5}{7}$

46. 3; Population = $8.5 \times \frac{110}{100} \times \frac{115}{100} \times \frac{120}{100}$

= 12.903 lakh

47. 1; Population$_{1970}$

$= 2087250 \times \frac{100}{115} \times \frac{100}{125} \times \frac{100}{132} = 11$ lakh

48. 3; Population-A_{1970}

$= 1388800 \times \frac{100}{112} \times \frac{100}{124} \times \frac{100}{125} = 8$ lakh

Population-B_{1970}

$= 1302912 \times \frac{100}{120} \times \frac{100}{116} \times \frac{100}{130} = 7.2$ lakh

Reqd percentage = $\frac{7.2}{8}$ × 100 = 90%

49. 4; $E_{2000} = 12.5 \times \frac{125}{100} \times \frac{116}{100} \times \frac{140}{100}$

= 25.375 lakh

$F_{2000} = 10 \times \frac{121}{100} \times \frac{125}{100} \times \frac{136}{100} = 20.57$ lakh

$\therefore$ Difference = 25.375 – 20.57 = 4.805 lakh

50. 1; Let the population of City C and City D be x at the beginning of 1970.

$\therefore$ Population-$C_{1990} = x \times \frac{110}{100} \times \frac{115}{100}$

Population-$D_{1990} = x \times \frac{115}{100} \times \frac{125}{100}$

$\therefore$ Ratio = $\frac{110}{125} = \frac{22}{25}$

51. 4; 2002, 2003, 2005, 2006, 2007.

52. 4; $(1 : E)_B = 0.5$ and $(I : E)_A = 0.8$

$\therefore$ Reqd% = $\frac{0.5}{0.8}$ × 100 = 62.5%

53. 5; Data given are not sufficient.

54. 2; I_A = 40 + 1.2 = 48 lakh

I_B = 0.9 × 40 = 36 lakh

$\therefore$ Reqd% = $\frac{36}{48}$ × 100 = 75%

55. 3; $\frac{I_B}{E_B} = 0.8$,

$\therefore E_B = \frac{I_B}{0.8} = \frac{78}{0.8} = 97.5$ lakh

$\therefore$ Difference = 97.5 - 78 = 19.5 lakh

56. 2; Difference = 4870 - 4640 = 230

57. 3; Number of girls = 300+ 450 = 750

Number of boys = 720 + 600 = 1320

$\therefore$ Regd % $= \frac{750}{1320} \times 100 = 56.8\%$

58. 1; Girls 2003 = 560
Girls 2004 = 800

$\therefore \% = \frac{800 - 560}{560} \times 100 = \frac{24000}{560} = 42.8\%$

59. 2; % rise $= \frac{600 - 400}{400} \times 100 = 50\%$

60. 2; Girls 2007 = 640

Girls avg during whole period $= \frac{4640}{8} = 580$

$\therefore$ Reqd % $= \frac{(640 - 580)}{580} \times 100 \approx 10.34\%$

61. 2; $\frac{B}{G} = 1.6$

$\therefore G = \frac{B}{1.6} = \frac{128}{1.6} = 80$

$\therefore$ Diff = 128 - 80 = 48

62. 3: Reqd % $= \frac{1}{1.6} \times 100 = 62.5\%$

63. 5; Data is not sufficient to find the exact difference.

64. 4; Let $G_A = G_B = x$

$\because \frac{B_A}{G_A} = 0.8$

$\therefore B_A = 0.8x$

$\therefore \frac{B_B}{G_B} = 1.3$

$\therefore B_B = 1.3x$

$\therefore$ Reqd % $= \frac{1.3x}{0.8x} \times 100 = 162.5$

65. 1; $\frac{B_B}{G_B} = 1.5$

$\therefore B_B = 1.5 \times 70 = 105$, $B_A = 1.3 \times 70 = 91$
$B_B - B_A = 105 - 91 = 14$
and $G_A + G_B = 70 + 70 = 140$

$\therefore$ Reqd % $= \frac{14}{140} \times 100 = 10\%$

66. 1; $P_A = 40\%$, $P_B = \frac{48.6 - 36}{36} \times 100$
$= 35\%$
$\therefore$ Difference = 40 - 35 = 5%

67. 4: $I_A = 32.5$, $\%P_A = 25\%$

$\therefore E_A = \frac{32.5}{100 + 25} = 26$ lakh

$\therefore P_A = 32.5 - 26 = 6.5$ lakh
$P_B = 35 - 25 = 10$ lakh
Net profit of A and B = 10 + 6.5 = 16.5 lakh

68. 3; 2009; % profit $= \frac{77 - 44}{44} \times 100 = 75\%$

69. 1; $E_A = 45$ 1akh

$\therefore I_A = 45 \times \frac{110}{100} = 49.5$ lakh

$\therefore P_A = 4.5$ lakh and $P_B = 80 - 50 = 30$ lakh

$\therefore \% = \frac{4.5}{30} \times 100 = 15\%$

70. 4; $I_A = 90$ lakh, $E_A = 90 \times \frac{100}{120} = 75$ lakh

$\therefore P_A = 15$ lakh, $P_B = 72 - 45 = 27$ lakh

$\therefore$ Reqd % $= \frac{27 - 15}{15} \times 100 = \frac{1200}{15} = 80\%$

71. 1; Income $= 17 \times \frac{(100 + 35)}{100}$
$= 17 \times 1.35 = 22.95$ lakh

72. 5; Data is not sufficient.

73. 1; As the per cent profit of B is same in both the years, the total income is

$48 \times \frac{100 + 30}{100} = 62.4$ lakh

74. 3; The ratio of income to expenditure is maximum when the percentage profit is maxi-mum. Hence in year 2006.

75. 2; $\text{Income}_{B\text{-}2009} = 77$

$\therefore \text{Expenditure}_{B\text{-}2009} = \frac{77 \times 100}{100 + 40} = 55$ lakh

$\therefore \text{Expenditure}_{A\text{-}2004} = 55$ lakh

$\therefore$ Hence $\text{income}_{A\text{-}2004} = \frac{55 \times (100 + 20)}{100}$
$= 66$ lakh

76. 1; $\frac{I}{E} = 0.6$

$\therefore E = \frac{I}{0.6} = \frac{67.2}{0.6} = 112$ lakh

77. 3; Import of B can't be determined because no relationship between Company A and B is given.

78. 5; $\frac{I_A}{E_A} = 0.5$

$\therefore I_A = 0.5 \times E_A = 0.5 \times 116 = 58$ lakh

$\frac{I_B}{E_B} = 1.2$

$\Rightarrow \frac{1170}{12} = E_B$

$\Rightarrow E_B = 97.5$ lakh

$\therefore$ Sum = 58 + 97.5 = 155.5 lakh

79. 4; $\frac{I}{E} = 1.2$

$\Rightarrow I_1 = I - \frac{25I}{100} = \frac{25I}{100} = \frac{75I}{100}$

$\Rightarrow E_1 = E - E \times \frac{50}{100} = \frac{50E}{100}$

$\therefore \frac{I_I}{E_I} = \frac{75I}{100} \times \frac{100}{50E} = \frac{3}{2} \times \frac{I}{E} = \frac{3}{2} \times 1.2 = 1.8$

80. 1; $\frac{I_A}{E_A} = 1.2$

$\therefore E_A = \frac{I_A}{1.2} = \frac{102.6}{1.2} = 85.5$ lakh $\Rightarrow \frac{I_B}{E_B} = 0.4$

$\therefore I_B = 0.4 \times E_B = 0.4 \times 112.5 = 45$ lakh

$\therefore$ Reqd % = $\frac{85.5}{45} \times 100 = 190\%$

81. 1; $\frac{E_A}{I_A} = 0.25$

$\therefore E_4 = 0.25 \times 96.8 = 24.2$ lakh

82. 4; $\frac{E_{B2004}}{I_{A2004}} = 0.55$

$\frac{E_{B2002}}{I_{A2002}} = 0.4$

$\therefore$ Reqd % = $\frac{0.55}{0.4} \times 100 = 137.5\%$

83. 2; $\frac{E_A}{I_A} = 0.8$

$\therefore E_A = 0.8 \times I_A = 0.8 \times 86 = 68.8$ lakh

$\frac{E_B}{I_B} = 0.6$

$\therefore I_B = \frac{E_B}{0.6} = \frac{51}{0.6} = 85$ lakh

$\therefore$ Sum = 85 + 68.8 = 153.8 lakh

84. 5; $\frac{E}{I} = 0.4$

Let the new export be E_1 and import be I_1 Then,

$E_1 = \frac{E + E \times 125}{100} = \frac{225E}{100}$

$I_1 = \frac{I - I \times 60}{100} = \frac{401}{100}$

New ratio = $\frac{E_1}{I_1} = \frac{225E}{100} \times \frac{100}{401}$

$= \frac{225}{40} \times \frac{E}{I} = \frac{225}{40} \times 0.4 = 9:4$

85. 1; $\frac{E_A}{I_A} = 0.3$

$\therefore I_A = \frac{E_A}{0.3} = \frac{23.4}{0.3} = 78$ lakh

$\frac{E_B}{I_B} = 0.75$

$\therefore I_B = \frac{E_B}{0.75} = \frac{72}{0.75} = 96$ lakh

$\therefore$ Reqd % = $\frac{78}{96} \times 100 = 81.25\%$

86. 4; Production of Company A in year 2009 = 550
Production of Company A in year 2010 = 700

Reqd % = $\frac{700 - 550}{550} \times 100 = \frac{150}{550} \times 100$

$= \frac{300}{100} = 27.27 \approx 27\%$

87. 2; Sales of Company A in year 2009 = 400
Production of Company A in year 2009 = 550

Reqd % = $= \frac{400}{550} \times 100 = \frac{800}{11} = 72.72 \approx 73\%$

88. 3; Average production of Company B

$= \frac{600 + 700 + 800 + 600 + 650 + 700}{6}$

$= \frac{4050}{6} = 675$

89. 5; Reqd ratio

$= \frac{\text{Total Production of Company A}}{\text{Total Sales of Company A}}$

$= \frac{4050}{2750} = \frac{81}{55} = 81:55$

90. 3; Production of Company B in the year 2006.
= 150 × 4 = 600
Production of Company B **in** the year 2008
= 200 × 4 = 800

$\text{Ratio} = \frac{600}{800} = 3:4$

91. 2; $\text{Income} = \text{Expenditure} \times \frac{100 + \%\text{Profit}}{100}$

$\text{Expenditure} = \text{Income} \times \frac{100}{100 + \%\text{Profit}} = 55.8 \times \frac{100}{100 + 24}$

$\text{Expenditure} = 55.8 \times \frac{100}{124} = 45 \text{ crore}$

92. 5; For $\frac{\text{Income}}{\text{Expenditure}}$ to be the minimum the % profit should be the minimum.

Hence, in the year 2010, $\frac{\text{Income}}{\text{Expenditure}}$ is the minimum.

93. 4; Since % profit is the same, the total income will be =

$\text{total expenditure} \times \frac{100 + \%P}{100}$

$\therefore$ Total Income = $148 \times \frac{130}{100} = 192.4$ crore

94. 2; Profit of Company A in the year 2005 = 25%
Income of company A in the year 2005 = 56 crore
Profit of company B in the 2009 year = 45%
Expenditure of Company B in the year 2009 = 56 crore

$\therefore \quad E_A = 56 \times \frac{100}{100 + 25} = 44.8$

$\therefore \quad I_B = 56 \times \frac{100 + 45}{100} = 81.2$

$\therefore$ Total = 44.8 + 81.2 = 126 crore

95. 5; Data are not sufficient.
We can find the total expenditure of A and B together in the year 2008 but we can't find their individual exenditures.

96. 2; Income of Company A in 2007

$I = E \times \frac{(100 + P)}{100}$

$\text{or } E = \frac{100 \times I}{(100 + P)} = \frac{85.8 \times 100}{(100 + 32)}$

$= \frac{8580}{132} = 65 \text{ lakh}$

97. 4; Company A's income in 2012

$= \text{Expenditure} \times \frac{(\%\text{ Profit} + 100)}{100}$

$\therefore 1 = 90.6 \times \frac{155}{100} = 140.43$ lakh

98. 2; Company B's percentage profits in different years are as follows

% Profit in 2007 → $\frac{32 - 25}{25} \times 100 = 28\%$

% Profit in 2009 → $\frac{45 - 30}{30} \times 100 = 50\%$

% Profit in 2010 → $\frac{50 - 45}{45} \times 100 =$ II.II% 45

% Profit in 2011 → $\frac{60 - 50}{50} \times 100 = 20\%$

99. 5; We can't find the exact value of the net profit from the given data.

100. 4; $E_A = I_a = 84$ lakhs
Percentage profit of Company A = 30%
Percentage profit of Company B = 50%

$I_A = E_A \times \frac{100 + P_A}{100} = 84 \times \frac{130}{100} = 109.2 \text{ lakh}$

$E_B = I_B \times \frac{100}{(100 + P_B)} = 84 \times \frac{100}{150} = 56 \text{ lakh}$

$\therefore$ Difference = 109.2 - 56 = 53.2 lakhs

101. 2; % profit = 35%

$\text{Expenditure} = \text{Income} \times \frac{100}{100 + \%P}$

Thus, $91.8 \times \frac{100}{135} = 68$ lakh

102. 4; $\frac{E_1}{E_2} = \frac{6}{5}$ So, $E_1 = 6$, $E_2 = 5$

Now,

$I_1 = E_1 \times \frac{100 + 30}{100} = E_1 \times 1.3$

$I_2 = E_2 \times 1.2$

$\frac{I_1}{I_2} = \frac{E_1}{E_2} \times \frac{1.3}{1.2} = \frac{6 \times 1.3}{5 \times 1.2} = \frac{78}{60}$

$I_1 : I_2 = \frac{13}{10} = 13:10$

103. 5

104. 2; $\%\ P_A = 20\%$

$\text{Expenditure}_A = \frac{I}{1.2} = \frac{90}{1.2} = 75 \text{ lakhs}$

$\%\ P_B = 35\%$
$\text{Income}_B = 90 \times 1.35 = 135$ lakhs

$\text{Ratio} = \frac{135}{75} = \frac{9}{5}$

105. 1; Let the expenditure be x.

$\text{Income} = x \times \frac{100 + 25}{100} = 1.25x$

$\therefore \% = \frac{x}{1.25x} \times 100 = \frac{100}{1.25} = 80\%$

106. 4: $\frac{\text{Export of Company A}}{\text{Import of Company A}} = .6$

$\therefore$ Import of Company A $= \frac{51}{0.6} = 85$ lakh

$\frac{\text{Export of Company B}}{\text{Import of Company B}} = 0.8$

$\therefore$ Import of Company B $= \frac{54}{0.8} = 67.5$ lakh

$\therefore$ Difference = 85 – 67.5 = 17.5 lakh

107. 5; $\frac{\text{Export of Company A}}{\text{Import of Company A}} = 1.5$

$\therefore$ Export of Company A = 64 × 1.5 = 96 lakh

$\frac{\text{Export of Company C}}{\text{Import of Company C}} = 0.5$

$\therefore$ Import of Company C $= \frac{48}{0.5} = 96$ lakh

$\therefore$ Ratio = $\frac{96}{96} = \frac{1}{1}$

108. 5; $\frac{\text{Export of Company A}}{\text{Import of Company A}} = 1.2$

$\therefore$ Export of Company A = 1.2 × 55 = 66 lakh

$\frac{\text{Export of Company B}}{\text{Import of Company B}} = 0.8$

$\therefore$ Export of Company B = 55 × 0.8 = 44 lakh

$\therefore$ Reqd % = $\frac{66}{44}$ × 100 = 150%

109. 1; $\frac{\text{Export of Company B}}{\text{Import of Company B}} = 0.7$

$\therefore$ Import of Company B $= \frac{58.8}{0.7} = 84$ lakh

$\frac{\text{Export of Company C}}{\text{Import of Company C}} = 0.7$

$\therefore$ Import of Company C = $\frac{56.7}{0.7} = 81$ lakh

110. 3; $\frac{E}{I} = 0.75 = \frac{3}{4}$

$E_1 = E + \frac{200 \times E}{100} = 3E$

$I_1 = I + I + \frac{501}{100} = \frac{31}{2}$

$\therefore \frac{E_1}{I_1} = \frac{3E}{1} \times \frac{2}{31} = 2 \times \frac{E}{I} = 2 \times \frac{3}{4} = \frac{3}{2}$

111. 3; Total runs socred by India and Australia in Match 4 together = 220 + 190 = 410
Total runs scored by England in all the five matches togeather
= 160 + 180 + 230 + 270 + 300 = 1140

$\therefore$ Reqd % = $\frac{410}{114} \times 100 = 35.96 \approx 36\%$

112. 3; Difference between Australia and England in
Match 1 → 260 - 160 = 100
Match 2 → 330 - 180 = 150
Match 3 → 310 - 230 = 80
Match 4 → 270 - 220 = 50
Match 5 → 300 - 150 = 150
The second lowest difference of runs scored was in Match 3.

113. 1; Total runs scored by India and England in
Match 1 → 160 + 320 = 480
Match 2 → 180 + 240 = 420
Match 3 → 230 + 270 = 500
Match 4 → 270 + 190 = 460
Match 5 → 300 + 220 = 520
Hence the third highest / lowest was scored in Match 1.

114. 4; India scored in Match 5 = 220
England scored in Match 2 = 180
Australia scored in Match 1 = 260
$\therefore$ Ratio of India : Australia : England
220 : 260 : 180
11 : 13 : 9

115. 2; Average

$= \frac{230 + 370 + 310}{3} = \frac{810}{3} = 270$

116. 4; $\frac{I_A}{E_A} = 0.7$

or, $E_A = \frac{I_A}{0.7} = \frac{53.9}{0.7} = 77$ lakh

117. 2; $\frac{I_A}{E_A} = 0.8$

$\frac{I_B}{E_B} = 0.9$

$\therefore$ Reqd % = $\frac{0.9 - 0.8}{0.8} \times 100 = \frac{100}{8} = 12.5\%$

118. 4; $\frac{I_A}{E_A} = 0.75$ ...(I)

$I_A = I_A + \frac{I_A \times \frac{100}{3}}{100}$

$= I_A + \frac{I_A}{3} = \frac{41_A}{3}$

$E_{A1} = E_A - E_A \times \frac{20}{100} = \frac{80E_A}{100} = \frac{4}{5}E_A$

New ratio = $\frac{I_{A1}}{E_{A1}} = \frac{41_A}{3} \times \frac{5}{4E_A} = \frac{5}{3} \times \frac{I_A}{E_A}$

$= \frac{5}{3} \times 0.75 = 1.25$

119. 2; $\frac{I_A}{E_A} = 0.8$

$E_A = \frac{I_A}{0.8} = \frac{36}{0.8} = 45$ lakh

$I_B = E_B \times 0.9 = 60 \times 0.9 = 54$ lakh

$\therefore$ Reqd% = $\frac{54}{45} \times 100 = 120\%$

120. 5; $E_B < I_B$

$\therefore \frac{I_B}{E_B} > 1.0$

In year 2008 $\frac{I_B}{E_B} = 1.4$ ie > 1.0

121. 2; Expenditure$_B$

= Income$_B$ $\times \frac{100}{100 + \%\text{profit}}$

$= 136 \times \frac{100}{170} =$ Rs 80 lakh

$\therefore$ Profit of Company B

= 136 - 80 = `56 lakh

122. 4; Income of Company A in 2005 + Income of Company A in 2009

= `171.50 lakh

Expenditure of Company A in 2005 + Expenditure of Company A in 2009)

$= \frac{171.5 \times 100}{140} =$ Rs 122.5 lakh

{% profit is the same in year 2005 and 2009}

Total profit = 171.50 - 122.50 = `49 lakh

123. 4; % P_A = 75% and % P_B = 50%

$I_A = E_B$

$\therefore E_A = I_A \times \frac{100}{175}$ and $I_B = E_B \times \frac{150}{100}$

$\frac{E_A}{I_B} = \frac{100 \times I_A}{175} \times \frac{100}{150 \times E_B} = \frac{100 \times 100}{175 \times 150} = \frac{16}{42}$

= 16 : 42

124. 1; $E_A = I_B =$ Rs 90 lakh

$I_A = 90 \times \frac{140}{100} =$ Rs 126 lakh

$P_A = 90 \times \frac{40}{100} =$ Rs 36 lakh

I_B = 90 lakh

$\therefore E_B = \frac{90 \times 100}{180} =$ Rs 50 lakh

P_B = 90 - 50 = Rs 40 lakh

Reqd % = $\frac{36}{40} \times 100 = 90\%$

125. 1; $2005 \rightarrow \frac{40 - 25}{25} \times 100 = 60\%$

$2006 \rightarrow \frac{55 - 40}{40} \times 100 = 37.5\%$

$2009 \rightarrow \frac{40 - 30}{30} \times 100 = 33.33\%$

$2010 \rightarrow \frac{60 - 40}{40} \times 100 = 50\%$

$2011 \rightarrow \frac{75 - 60}{60} \times 100 = 25\%$

126. 2; Let Manav invest Rs x in Company B. Therefore, in Company A his investment would be Rs (40000 - x).

13.5% of x + 13% of (40000 – x) = 5299

or, $\frac{13.5}{100}x + \frac{13}{100} \times 40000 - \frac{13}{100}x = 5299$

or, $\frac{(13.5x - 13x)}{100} + 5200 = 5299$

or, $\frac{0.5x}{100} = 5299 - 5200 = 99$

$\therefore x = \frac{9900}{0.5} = \frac{99000}{5} =$ Rs19800

Therefore, Manav's investment in Company B is Rs 19800.

127. 5; Priya's amount in 2010 becomes

$50000 \times \frac{121.5}{100} = 60750$

Priya's amount in 2010 (when she invests Rs 60750 in Company B)

$= 60750 \times \frac{122}{100} =$ Rs 74115

128. 3; Total dividend

$= 37000 \times \frac{120}{100} + 19 \times \frac{37000}{100}$

$= 37000 \times \frac{39}{100} = 370 \times 39 =$ Rs14430

129. 1; Reqd ratio = $\frac{15.5 \times 7}{14 \times 9} = \frac{15.5}{18} = 31 : 36$

130. 4; Sukriti would have gained (22 - 20.5%) = 1.5% of investments. Therefore, she would have received 75000 $\times \frac{1.5}{100} =$ Rs1125

Hence, sukriti would have got Rs 1125 more.

131. 3; $I_{A2009} = Ex + \frac{Ex \times \%Profit}{100}$

$= 77.5 + \frac{77.5 \times 40}{100} = 77.5 + 31 = 108.5$ lakh

132. 4; $Ex_{B2012} = \frac{In \times 100}{\%P + 100} = \frac{125.4 \times 100}{10 + 100}$

$= \frac{12540}{100} = 114$ lakh

133. 1; Profit of Company A in the year 2008

$= 85 \times \frac{32}{100} = 27.2$ lakh

Profit of Company B in the year 2011

$= 85 - \frac{85 \times 100}{125} = 85 - 68 = 17$ lakh

$\therefore$ Difference = 27.2 - 17 = 10.2 lakh

134. 1; Let each of their incomes be I.

Expenditure of Company A in the year 2010

$= \frac{I \times 100}{\%P + 100} = \frac{I \times 100}{20 + 100} = \frac{1001}{120} = \frac{101}{12}$

Expenditure of Company B in the year 2010

$= \frac{1001}{150} = \frac{101}{15}$

$\therefore$ Ratio = $\frac{E_A}{E_B} = \frac{15}{12} = \frac{5}{4} = 5 : 4$

135. 5; Expenditure of Company A in the year 2010

$= \frac{171 \times 100}{120} = 142.5$ lakh

Income of Company B in the year 2012

$= 171 \times \frac{110}{100} = 188.1$ lakh

$\therefore$ Difference = 188.1 – 142.5 = 45.6 lakh

136. 4; $\frac{I_A}{E_A} = 0.3$

$\therefore E_A = \frac{23.58}{0.3} = 78.6$ lakh

137. 3; $\frac{I_{A2012}}{E_{A2012}} = 0.75$ $\quad$ $\frac{I_{C2011}}{E_{C2011}} = 1.2$

$\therefore$ Reqd % = $\frac{0.75}{1.2} \times 100 = \frac{75}{1.2} = 62.5\%$

138. 3; $\frac{I_{A2012}}{E_{A2012}} = 0.75$

I_{A2012} = 0.75 × 64 = 48 lakh

Again,

$\frac{I_{C2009}}{E_{C2009}} = 0.8$

$E_{C2009} = \frac{64}{0.8} = 80$ lakh

$\therefore$ Reqd % = $\frac{48}{80} \times 100 = 60\%$

139. 2; $\frac{I_{A2009}}{E_{A2009}} = 0.5$

$E_{A2012} = \frac{36}{0.5} = 72$ lakh

$\frac{I_{B2009}}{E_{B2009}} = 0.25$

Again,

$\therefore E_{B2009} = \frac{27}{0.25} = 108$ lakh

$\therefore$ Ratio = $\frac{72}{108} = \frac{2}{3} = 2 : 3$

140. 5; Let the import of Company C in 2008 and 2012 be x each.

$Export_{2008} = \frac{x}{0.5} = 2x$

$Export_{2012} = \frac{x}{0.6} = \frac{5x}{3}$

$\therefore$ Reqd % = $\frac{2x}{\left(\frac{5x}{3}\right)} \times 100 = \frac{6x}{5x} \times 100 = 120\%$

141. 2; Exp of Company A in the year 2007

$= \frac{73.6 \times 100}{100 + 15} = \frac{7360}{115} = 64$ lakh

142. 4; $Ex_{A2010} = \frac{93.6 \times 100}{120} = 78$ lakh

$Ex_{B2011} = \frac{86.4 \times 100}{120} = 72$ lakh

$\therefore$ Difference = 78 - 72 = 6 lakh

143. 3; Percentage profit of Company A

$= \frac{87 - 75}{75} \times 100 = 16\%$

Percentage profit of Company B

$= \frac{95.2 - 85}{85} \times 100 = 12\%$

$\therefore$ Difference = 16 - 12 = 4%

144. 3; Reqd % = $\frac{93.6 \times 100}{120} = 78\%$

145. 5; $Ex_{A2011} = \frac{100.8 \times 100}{112} = 90$ lakh

$Ex_{B2009} = \frac{95.2\times100}{112}$ = 85 lakh

$\therefore$ Ratio = $\frac{90}{85}=\frac{18}{17}=18:17$

146. 2; The ratio of expenditure to income of Company A in the year 2009 = 1.2

And the ratio of expenditure to income of Company A in the year 2012 = 0.75

$\therefore$ Reqd % = $\frac{0.75\times100}{1.2}=62.5\%$

147. 2; $\frac{E}{I}=\frac{7}{10}$ ...(i)

Let the new expenditure be E_1

Then, $E_1 = E + E\times\frac{100}{100} = 2E$

Now, let the new income be I_1, Then,

$I_1 = I + I\times\frac{110}{100}=\frac{211}{10}$

$\therefore$ New ratio =

$\frac{E_1}{I_1}=\frac{2E}{\left(\frac{211}{10}\right)}=2E\times\frac{10}{211}=\frac{20}{21}\times\frac{E}{I}=\frac{20}{21}\times\frac{7}{10}=\frac{2}{3}$

= 2 : 3

148. 4; Ratio of Company B = $\frac{E}{I}$ = 0.7

$\therefore$ 1 = $\frac{14.7}{0.7}$ = 21 lakh

$\therefore$ Profit = 21 - 14.7 = 6.3 lakh

$\therefore$ % profit = $\frac{6.3}{14.7}\times100=42.857\%\approx43\%$

149. 1; $\frac{E_{A2010}}{I_{A2010}}=0.8$

$\therefore$ E_{A2010} = 0.8 × 18.5 = 14.8 lakh

P_A = 18.5 - 14.8 = 3.7 lakh

Now, $\frac{E_{B2007}}{I_{B2007}}=0.8$

$\therefore I_B=\frac{E_B}{0.8}=\frac{12.4}{0.8}=15.5$ lakh

$\therefore$ P_B = 15.5 - 12.4 = 3.1 lakh

$\therefore$ Difference = 3.7 - 3.1 = 0.6 lakh = `60000

150. 4; $\frac{E_{A2012}}{I_{A2012}}=0.75$

$\therefore$ E_{A2012} = 0.75 × 24 = 18 lakh

$\therefore$ Profit of Company A_{2012}

= 24 - 18 = 6 lakh

$\frac{E_{B2011}}{I_{B2011}}=0.8$ $I_{B2011}=\frac{24}{0.8}=30$ lakh

Profit of Company B_{2011} = 30 - 24 = 6 lakh

$\therefore$ Reqd % = $\frac{6\times100}{6}=100\%$

151. 5; Population of City C_{2012}

$=4.5\times\frac{130}{100}\times\frac{160}{100}=9.36$ lakh

152. 3; Let the population of City D in the year 2010 be x.

Then population of City D in the year 2011

= x × $\frac{175}{100}$

$\therefore$ Required % = $\frac{x}{1}\times\frac{100}{175x}\times100$

$= 57.14 \approx 57\%$

153. 2; Let the population of City A in the year 2010 be x.

$\therefore$ Then, its population in the year 2012

$=x\times\frac{140}{100}\times\frac{150}{100}=2.1x$

$\therefore$ Difference = 2.1x - x = l.1x

$\because$ 1.1x = 2.75 lakh

$\therefore$ x = $\frac{2.75}{1.1}$ = 2.5 lakh

154. 4; Population of E in the year 2012

$=3.2\times\frac{150}{100}\times\frac{140}{100}=6.72$ lakh

155. 2; Population of City F in the year 2010

$=5.4\times\frac{100}{180}\times\frac{100}{125}=2.4$ lakh

[Population of B_{2010} = Population of F_{2010}]

$\therefore$ Population of $B_{20l2}=2.4\times\frac{160}{100}\times\frac{145}{100}$

= 5.568 lakh

156. 2; $I_A = 75 + 75 \times \frac{124}{100} = 93$ lakh

$I_B = 75 - 75 \times \frac{16}{100} = 63$ lakh

$\therefore$ Difference = 93 - 63 = 30 lakh

157. 1; $Ex_{2007} = 84 \times \frac{100}{140} = 60$ lakh

$Ex_{2011} = 84 \times \frac{100}{120} = 70$ lakh

$\therefore$ Difference = 70 - 60 = 10 lakh

158. 3; Let their expenditures be x each.

$Income_A = x \times \frac{125}{100} = \frac{5x}{4}$

$Income_B = x \times \frac{75}{100} = \frac{3x}{4}$

$\therefore$ Ratio $= \frac{3x}{4} \times \frac{4}{5x} = 3 : 5$

159. 4; Reqd % $= \frac{30-24}{24} \times 100 = \frac{600}{24} = 25\%$

160. 3; Profit of $A_{2008} = 55 \times \frac{24}{100} = 13.2$ lakh

Profit of $A_{2010} = 35 \times \frac{48}{100} = 16.8$ lakh

$\therefore$ Total profit = 13.2 + 16.8 = 30 lakh

161. 2; $\frac{I_{A2008}}{E_{A2008}} = 0.6$

and $\frac{I_{B2007}}{E_{B2007}} = 0.8$

Now, $E_{B2007} = \frac{75}{0.8} = 90$ lakh

Again, $I_{A2008} = 0.6 \times 105 = 63$ lakh

$\therefore$ Reqd % $= \frac{63 \times 100}{90} = 70\%$

162. 3. Initially, $\frac{I_{A2010}}{E_{A2010}} = 0.8 = \frac{4}{5}$

Now $I_1 = I_A + I_A \times \frac{50}{100} = \frac{31_A}{2}$

$E_1 = E_A - \frac{20E_A}{100} = \frac{4E_A}{5}$

New ratio $= \frac{3I_A}{2} \times \frac{5}{4E_A}$

$= \frac{15}{8} \times \frac{I_A}{E_A} = \frac{15}{8} \times \frac{4}{5} = \frac{3}{2} = 3 : 2$

163. 5; $\frac{I_{A2010}}{E_{A2010}} = 0.8 = \frac{4}{5}$ ...(i)

$\frac{I_{B2011}}{E_{B2011}} = 0.6 = \frac{3}{5}$ ...(ii)

Now, from eqn (i), we have

$E_{A2010} = \frac{5}{4} I_{A2010}$

Again, from eqn (ii), we have

$I_{B2011} = \frac{3}{5} E_{B2011}$

$\therefore \frac{E_{A2010}}{I_{B2011}} = \frac{5I_A}{4} \times \frac{5}{3E_B} = \frac{25}{12} = 25 : 12$

$[\because I_A = E_B]$

164. 3; $\therefore$ Reqd % $= \frac{0.7}{0.4}$ x 100 = 175%

165. 2; $\frac{I_{A2010}}{E_{A2010}} = 0.8$

$\therefore E_{A2010} = \frac{I_{A2010}}{0.8} = \frac{108}{0.8} = 135$ lakh

Now, $\frac{I_{B2008}}{E_{B2008}} = 0.9$

$E_{B2008} = \frac{I_{B2008}}{0.9} = \frac{108}{0.9} = 120$ lakh

$\therefore$ Reqd % $= \frac{135 \times 100}{120} = 112.5\%$

166. 3; Income of $A_{2009} = 440$ cr

$\therefore$ Expenditure of $A_{2009} = \frac{100}{110} \times 440$

= 400 cr

167. 3; The ratio of expenditure to income is the highest when profit is the lowest. Thus, in the year 2010 the profit of Company A is the lowest.

168. 3; Income of A_{2009} + Income of $B_{2009} = 880$ crore

Expenditure of A_{2009} + Expenditure of B_{2010}

$= \frac{100}{110} \times 880 = 800$ crore

169. 4; Income of B_{2012} = 250
Income of A_{2009} = Expenditure of A_{2009}

$= 250 \times \frac{100}{125}$ = 200 cr

Then, expenditure of

$A_{2009} = 200 \times \frac{100}{110} = \frac{2000}{11}$ cr

$\therefore$ Expenditure of B_{2012} = 200 cr

$\text{Reqd\%} = \frac{2000}{11 \times 200} \times 100 = \frac{1000}{11}\%$

$= 90.90\% \approx 91\%$

170. 3; Ratio of expenditure of Company A to Company B in the year 2009 = 5 : 11
Ratio of income of Company A to Company B in the year 2009

$= 5 \times \frac{110}{100} : 11 \times \frac{125}{100}$

$= \frac{11}{2} : \frac{55}{4}$

Reqd ratio = 2 : 5

171. 2; Cost of one kg apple in Jalandhar = `160
Cost of one kg guava in Jalandhar = `60
Difference = 160 - 60 = `100
Similarly, in Delhi → `(130 - 90) = `40
In Chandigarh → `(180 - 120) = `60
In Hoshiarpur → `(90 - 30) = `60
In Ropar → `(40 - 20) = `20
Hence, the second lowest difference between price of one kg apple and one kg guava is in Delhi.

172. 4; Cost of one kg of guava in Jalandhar = `60
Cost of two kg of grapes in Chandigarh = ` 90 × 2 = `180

$\text{Reqd\%} = \frac{60}{180} \times 100 = \frac{1}{3} \times 100 = 33.33 \approx$ 34%

173. 3: Total amount = 3 × 130 + 90 × 2 = 390 + 180 = ` 570

174. 1; Cost of 45 kg grapes in Hoshiarpur = 45 × 190 = ` 8550
After 4% discount, cost price of grapes

$= 8550 - \frac{8550 \times 4}{100} = 8550 - 342 =$ ` 8208

Hence, Ravindcr had to pay ` 8208.

175. 3; $\text{Reqd ratio} = \frac{40}{90} = \frac{4}{9} = 2^2 : 3^2$

176. 2; $\text{Reqd \%} = \frac{700 - 500}{500} \times 100$

$= \frac{200}{500} \times 100 = 40\%$

177. 1; Total export of all three companies in the year 2008 = 600 + 700 + 800 = 2100
Total export of all three companies in the year 2010 = 400 + 600 + 800 = 1800
$\therefore$ Reqd ratio = 2100 : 1800 = 7 : 6

178. 2; For Company X in the year

$2008 \rightarrow \frac{200}{1000} \times 100 = 20\%$ (decrease)

$2009 \rightarrow \frac{200}{800} \times 100 = 25\%$ (decrease)

$2010 \rightarrow \frac{200}{600} \times 100 = 33\frac{1}{3}\%$ (decrease)

$2011 \rightarrow \frac{200}{400} \times 100 = 50\%$ (increase)

$2012 \rightarrow \frac{300}{600} \times 100 = 50\%$ (increase)

179. 3; Average

$= \frac{800 + 700 + 500 + 800 + 1000 + 700}{6}$

= 750 thousand tonnes

180. 3; $\text{Reqd \%} = \frac{3500 \times 100}{4500} = 77.77\% \approx 78\%$

181. 1; In 2010, profit of Company M
= 4.5 crore
Profit of Company (P + N) = (4 + 3) = 7 crore

$\therefore \text{Reqd\%} = \frac{4.5}{7} \times 100 = 4.5 = 64.28\%$

182. 4; Expenditure of Company M in the year 2011 is 75 crore.
Profit of Company M in year 2011 is 4 crore.
$\therefore$ Income of Company M in year 2011 is 75 + 4 = 79 crore
Now, expenditure of Company P in the year 2011 is 68 crore.
Profit of Company P in the year 2011 is 7 crore.
Income of Company P in the year 2011 is (68 + 7) = 75 crore
$\therefore$ Reqd ratio = 79 : 75

183. 2; In the year 2012 profit of Company M
= 6 crore

$\therefore$ Expenditure = $6\left(1+\frac{50}{100}\right)=9$ crore

Income = (9 + 6) = 15 crore

Profit of Company N in the year 2012 = 6.5 crore

$\therefore$ Expenditure $=6.5\left(1+\frac{60}{100}\right)$

$= 6.5 \times \frac{8}{5} = 1.3 \times 8 = 10.4$ crore

Hence, Income = (6.5 + 10.4) = 16.9 crore

Again, Profit of Company P in the year 2012 = 5 crore

$\therefore$ Expenditure = $5\left(1+\frac{80}{100}\right)=5\times\frac{9}{8}=9$ crore

Hence, Income = (9 + 5) = 14 crore

Now, average income of all three companies

$=\frac{1}{3}(15+16.9+14)=\frac{45.9}{3}=15.3$ crore

184. 3; Profit of Company N in the year 2009 = 2 crore

Profit of Company N in the year 2012. = 6.5 crore

Increase = (6.5 - 2) = 4.5 crore

% increase = $\frac{4.5}{2} \times 100 = 225\%$

185. 5; Income of Company P in the year 2010 = 40 crore

Income of Company M in the year 2010

$=40\left(1+\frac{20}{100}\right)=48$ crore

Now, profit of Company M in the year 2010 = 4.5 crore

$\therefore$ Expenditure of Company M in the year 2010 - (48 - 4.5) crore = 43.5 crore

186. 1; In 2010 total GDP = ` 60 crore

Expenditure on Education = $60\times\frac{3}{100}$

= 1.8 crore

Expenditure on Health = $60 \times \frac{5}{100} = 3$ crore

Expenditure on Defence = $60 \times \frac{6}{100} = 3.6$ crore

Reqd ratio = 1.8 : 3 : 3.6 = 3 : 5 : 6

187. 5; GDP growth during 2011-12 → 60 - 40 = 20 crore

GDP growth during 2007-08 → 50 - 40 = 10 crore

$\therefore$ Required percentage = $\frac{10}{20} \times 100 = 50\%$

188. 2; Total amount allotted to Defence during 2007-12 $=(40+\frac{5}{100}+50\times\frac{4.5}{100}+50\times\frac{5.5}{100}$

$+60\times\frac{6}{100}+40\times\frac{5}{100}+60\times\frac{5.5}{100})$ crore

= (2 + 2.25 + 2.75 + 3.6 + 2 + 3.3) crore = 15.9 crore

189. 1; Total amount allotted to Education, Health and Defence in the year 2007

$= 40 \times \frac{(2+3+5)}{100}$crore $= 40\times\frac{10}{100}$ crore

In 2008 = $50 \times \frac{(2.5+4+4.5)}{100}$ crore

$= 50 \times \frac{11}{100} = 5.5$crore

In 2009 = $50 \times \frac{(3+4+5.5)}{100}$ crore

$= 50 \times \frac{12.5}{100} = 6.25$ crore

In 2010 = $60 \times \frac{(3+5+6)}{100}$ crore

$= 60 \times \frac{14}{100} = 8.4$crore

In 2011 = $40 \times \frac{(2.5+4+5)}{100}$ crore

$= 40 \times \frac{11.5}{100} = 4.6$ crore

In 2012 = $60 \times \frac{(4+5.5+6)}{100}$ crore

$= 60 \times \frac{15.5}{100} = 9.3$ crore

In 2012, the allotted amount is the maximum.

190. 4; Amount allotted during 2009 to

Education = $65 \times \frac{3}{100}$ crore = 1.5 crore

In 2010 = $60 \times \frac{3}{100}$ crore = 1.8 crore

$\therefore$ Difference = (1.8 - 1.5) crore = 0.3 crore = 30 lakh

191. 2; In 2010, amount allotted to Education

$= 60 \times \frac{3}{100} = 1.8\text{crore}$

In 2012, amount allotted to Education

$= 40 \times \frac{3}{100} = 1.2$ crore

$\therefore$ Percentage decrease $= \frac{0.6}{1.8} \times 100 = 33.3\%$

192. 4; The graph shows that the price of M and N type tiles sdecreases over the period.

Now, for O type tiles the percentage increase from 2006 to 2012 is

$$\frac{200-150}{150} \times 100 = \frac{50}{150} \times 100 = 33\frac{1}{3}\%$$

For P type tiles the percentage increase from 2006 to 2012 is

$$\frac{300-50}{50} \times 100 = \frac{250}{50} \times 100 = 500\%$$

193. 2; Average price of M during 2006 to 2012

$= \frac{1}{7}$ (250 + 400 + 50 + 150 + 200 + 50 + 150) $= \frac{1250}{7} =$ `178.57

Average price of N during 2006 to 2012

$= \frac{1}{7}$ {300 + 350 + 250 + 350 + 300 + 350 + 250) $= \frac{2150}{7} =$ `307.14

Average price of O during 2006 to 2012

$= \frac{1}{7}$ (150 + 100 + 200 + 300 + 100 + 250 + 200) $= \frac{1300}{7} =$ `185.714

Average price of P during 2006 to 2012

$= \frac{1}{7}$ (50 + 200 + 150 + 100 t 250 + 100 + 300) = `164.28

Thus, N type of tiles' show the maximum average price during 2006 to 2012.

194. 2; Average price of all tiles in 2006

$= \frac{1}{4}$ (50 + 150 + 250 + 300) = `187.5

Average price of all tiles in 2007

$= \frac{1}{4}$ (100 + 200 + 350 + 400) = `262.5

Average price of all tiles in 2008

$= \frac{1}{4}$ (50 + 150 + 200 + 250) = `162.5

Average price of all tiles in 2009

$= \frac{1}{4}$ (100 + 150 + 300 + 350) = `225

Average price of all tiles in 2010

$= \frac{1}{4}$ (100 + 200 + 250 + 300) = `212.5

Average price of all tiles in 2011

$= \frac{1}{4}$ (50 + 100 + 250 + 350) = `187.5

Average price of all tiles in 2012

$= \frac{1}{4}$ (150 + 200 + 250 + 300) = `225

$\therefore$ In 2008, the average price of all four types of tiles is the minmum.

195. 3; Total price of alLfour types of tiles in 2012 is (150 + 200 + 250 + 300) = `900

Total price of all four types of tiles in 2009 is (100 + 150 + 300 + 350) = `900

Both are equal, so the required percentage is 0%.

196. 5; Reqd ratio

$$= \frac{\text{Price of O type tiles in 2008}}{\text{Price of P type tiles in 2009}}$$

$$= \frac{200}{250} = \frac{4}{5} = 4:5$$

197. 3; Annual sales of all companies in FY 2006-07 = 150 + 200 + 225 + 250 + 300 = 1125 lakh

Annual sales of all companies in FY 2011-12 = (325 + 350 + 400 + 450 + 500) = `2025 lakh

$\therefore$ Percentage increase

$$= \frac{2025-1125}{1125} \times 100 = 80\%$$

198. 4; Honda → Sales in FY 2006-07 = 300 lakh and in FY 2011-12 = 400 lakh

% increase in sales $= \frac{400-300}{300} \times 100$

= 33.33%

Maruti → Sales in the FY 2006-07
= 250 lakh and in FY 2011-12 = 500 lakh

$$\%\text{. increase in sales} = \frac{500-250}{250}\times 100$$

= 100%

Tata → Sales in FY 2006-07 = 200 lakh and in FY 2011-12 = 325 lakh

$$\%\text{ increase in sales} = \frac{325-200}{200}\times 100$$

= 62.5%

Hyundai → Sales in FY 2006-07 = 225 lakh and in FY 2011-12 = 350 lakh

$$\%\text{ increase in sales} = \frac{350-225}{225}\times 100$$

= 55.55%

Toyota → Sales in FY 2006-07 = 150 lakh and in FY 2011-12 = 450 lakh

$$\%\text{ increase in sales} = \frac{450-150}{150}\times 100 =$$

200%

Hence, Toyota recorded highest percentage increase in sales.

199. 2; Average sales of all companies

In FY 2006-07 $= \frac{1}{5}\times$ (150 + 200 + 225 + 250 + 300) = 235

In FY 2007-08 $= \frac{1}{5}\times$ (200 + 250 + 300 + 350 + 450) = 310

In FY 2008-09 $= \frac{1}{5}\times$ (150 + 250 + 300 + 325 + 350) = 275

In FY 2009-10 $= \frac{1}{5}\times$ (100 + 250 + 275 + 375 + 475) = 295

In FY 2010-11 $= \frac{1}{5}\times$ (200 + 250 + 300 + 400 + 450) = 320

In FY 2011-12 $= \frac{1}{5}\times$ (325 + 350 + 400 + 450 + 500) = 405

∴ Average minimum sales is in FY 2006-07.

200. 3; Total sales of Hyundai and Maruti in FY 2006-07 = (225 + 250) = 475 lakh
Total sales of Tata and Honda in FY 2006-07 = (200 + 300) = 500

$$\text{Reqd}\% = \frac{500-475}{500}\times 100 = \frac{25}{500}\times 100$$

= 5% .less. Hence, total sale of Maruti and Hyundai is 5% less than the total sales of Tata and Honda.

201. 4; Total sale of Honda in 2009-10 = 375
Total sale of Toyota in 2009-10 = 250.

$$\therefore \text{ Reqd } \% = \frac{375-250}{250}\times 100 = 50\%$$

202. 5; Expenditure = 120 - 70 = 50 crore

$$\therefore \text{ Profit } \% = \frac{70}{50}\times 100 = 140\%$$

203. 1; Income in 2011 = 85 + 30 = 115
∴ Reqd ratio = 115 : 85 = 23 : 17

204. 3;

$$\text{Average profit} = \frac{40+55+50+70+30+75}{6}$$

$$= \frac{320}{6} \approx 53 \text{ crore}$$

205. 2; Expenditure = Income - Profit
= 950000000 - 400000000 = `550000000

206. 4; % increase from previous year

$$= \frac{20}{50}\times 100 = 40\%$$

207. 3; Expenditure of Company A in the year 2009 = 25000 - 800 = 24200
Expenditure of Company A in the year 2012 = `32000 - 900 = `31100
∴ Average expenditure in both years

$$= \text{`}24200 + \text{`}31100 \times \frac{1}{2} = \text{`}27650$$

208. 2; Income of Company C in the year 2010 = `45000
Profit = `800
∴ Expenditure = `45000 - 800 = `44200

$$\%\text{ profit} = \frac{45000-44200}{44200}\times 100 = 1.80$$

Income of Company B in the year 2012 = `65000
Profit = ` 700
∴ Expenditure = `65000 - `700 = `64300

$$\%\text{ profit} = \frac{65000-64300}{64300}\times 100 = 1.08$$

∴ Reqd ratio = 1.80 : 1.08 = 5 : 3

209. 4; In 2009 profit of Company A = `800
Profit of Company B = `900
Income of Company A = `10000
Expenditure of Company A = 10000 - 800 = `9200
Expenditure of Company B = 10000 - 900 = 9100
∴ Reqd ratio = 9200 : 9100 = 92 : 91

210. 5; Profit of Company C in the year 2007 = `300
Profit of Company C in the year 2008 = `600
∴ % increase in profit

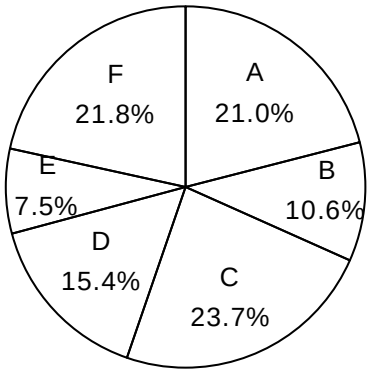
$$= \frac{(600-300)}{300} \times 100 = 100\%$$

211. 1; Income of Company A in the year 2011 = `(15000 + 500) = `15500
Income of Company D in the year 2011 = `(22000 + 900) = `22900
∴ Reqd ratio = 15500 : 22900 = 155 : 229

DATA INTERPRETATION
PIE CHART

Directions (Q. 1-5): The following pie-chart shows the percentage distribution of total population of six cities, and the table shows the percentage of males among them.

(Total population of City F = 1526000).

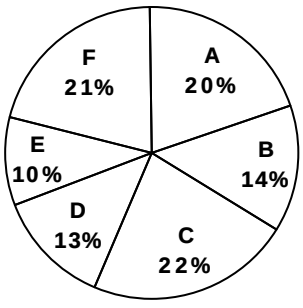


City	% Male
A	51.10%
B	53.20%
C	52.90%
D	53.80%
E	47.90%
F	49.20%

1. What is the total number of females in City A?
   (1) 718830 (2) 751170 (3) 724085 (4) 745915 (5) 739026
2. What is the difference between the male and the female population of City B?
   (1) 47448 (2) 47484 (3) 47488 (4) 47848 (5) 47844
3. The female population of City F is approximately what percentage of the female population of City E?
   (1) 174.8% (2) 224.5% (3) 257.5% (4) 283.5% (5) 296%
4. What is the total number of males in all six cities together?
   (1) 3573240 (2) 3605756 (3) 3614028 (4) 3625284 (5) None of these
5. The total number of females in all six cities together is what percentage of the total population of all six cities together? (Answer in approximate value)
   (1) 42.5% (2) 45% (3) 48.5% (4) 51% (5) 52.5%

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

There are six companies, namely A, B, C, D, E and F, which produce two models (M_1 and M_2) of an item. The given pie-chart shows the percentage distribution of total production by the given six companies and the table shows the ratio of production of M_1 to that of M_2 and the percentage of profit earned on these items. (Total production cost of the six companies is `3.2 crore.)



Company	Ratio of production		%Profit earned	
	M_1	M_2	$\%P_{M1}$	$\%P_{M2}$
A	13	7	25%	32%
B	9	5	28%	30%
C	6	5	20%	24%
D	6	7	35%	25%
E	2	3	24%	21%
F	11	10	30%	20%

6. What is the total profit earned by Company A on model M_1 (in ` crore)?
(1) 0.124 (2) 0.112 (3) 0.104 (4) 0.140 (5) 0.122

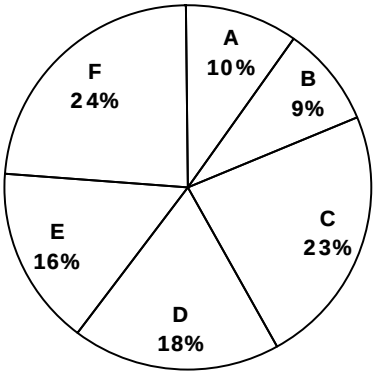
7. What is the total profit earned by Company B and Company C together on model M_2 (in ` crore)
(1) 0.1248 (2) 0.1284 (3) 0.1288 (4) 0.1244 (5) None of these

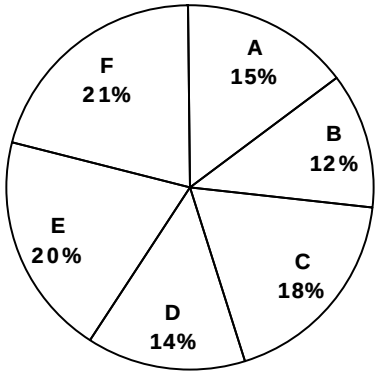
8. What is the ratio of the cost of production of model M_1 of Company D to that of model M_2 of Company F?
(1) 4 : 5 (2) 3 : 5 (3) 5 : 7 (4) 4 : 7 (5) 1 : 2

9. What is the difference beween the profit earned by Company C on model M_1 and the profit earned by Company E on model M_2? (in ` crore)
(1) 0.72768 (2) 0.74268 (3) 0.73428 (4) 0.77258 (5) None of these

10. The percentage profit earned by Company B on model M_1 is what percentage of the percentage profit earned by Company D on model M_2.
(1) 112% (2) 89.28% (3) 61% (4) 44.64% (5) Data inadequate

Directions (Q. 11-15): In the following charts, the first pie-chart shows the percentage distribution of total students studying in different schools and the second pie-chart shows the percentage distribution of total girl students studying in these schools. (Total number of students in all the schools together is 30000 and the ratio of boys to girls is 3:2.)





11. What is the difference between the total number of boys and the total number of girls studying in School D?
(1) 2020 (2) 2040 (3) 2066 (4) 2680 (5) 3720

12. The number of girls studying in School C is what percentage of the number of boys studying in School E?
(1) 60% (2) 70% (3) 75% (4) 80% (5) 90%

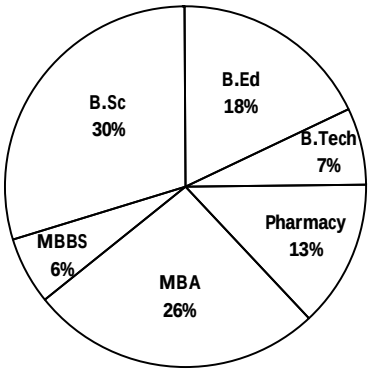
13. What is the average of the number of boys studying in school A, Band C?
(1) 2150 (2) 2200 (3) 2350 (4) 2400 (5) 2450

14. The number of girls in School F is what percentage more than the number of girls in School A?
(1) 25% (2) 30% (3) 40% (4) 50% (5) 60%

15. Total number of boys in School F is approximately what percentage more than the total number of boys in School
(1) 21.4% (2) 25.8% (3) 27.5% (4) 32% (5) 34.6%

Directions (Q. Nos. 16-20) ***Study the following Pie-chart carefully to answer these questions.***

Total Students = 6500 Percentage distribution of Students in different courses



16. What is the value of **half** of the difference between the number of students in MBA and MBBS?
(1) 800 (2) 1600 (3) 1300 (4) 650 (5) None of these

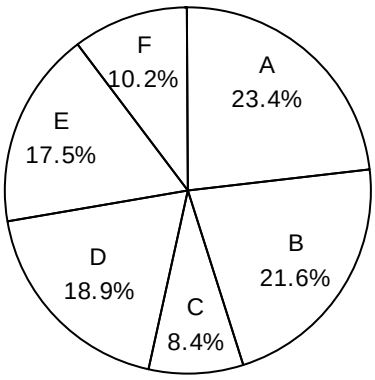
17. What percentage **(approximately)** of students are in MBA as compared to students in B.Ed.?
(1) 49 (2) 53 (3) 59 (4) 41 (5) 44

18. What is the total number of students in B.Ed., Pharmacy and MBBS together?
(1) 2465 (2) 2565 (3) 2405 (4) 2504 (5) None of these

19. What is the respective ratio between the number of students in Pharmacy and the number of students in B.Tech?
(1) 11 : 13 (2) 13 : 6 (3) 13 : 7 (4) 6 : 13 (5) None of these

20. Number of students in B.Sc. is **approximately** what percentage of the number of students in B.Ed.?
(1) 167 (2) 162 (3) 157 (4) 153 (5) 150

Directions (Q. 21 - 25): Following pie-chart shows the percentage distribution of the total population of six different cities and the table shows the percentage of adult population in them. (Population of City A = 1287000)



City	% Adult
A	77%
B	68%
C	73%
D	75%
E	69%
F	72%

21. What is the total adult population of City C?
(1) 337260 (2) 337262 (3) 337264 (4) 337266 (5) None of these

22. The total population of City A is approximately what percentage of the total population of City D?
(1) 117.5% (2) 123.8% (3) 125% (4) 127.6% (5) 129.2%

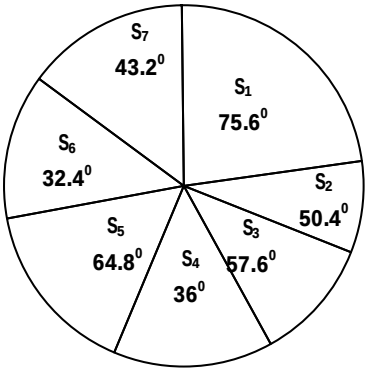
23. What is the total non - adult population of City F?
(1) 153010 (2) 154040 (3) 155300 (4) 1561020 (5) 157080

24. The total adult population of City B and C together is approximately what percentage of the total population of all six cities together?
(1) 16% (2) 21% (3) 25% (4) 27% (5) 30%

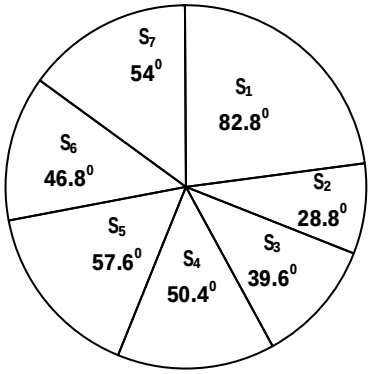
25. The total population of City D is approximately what percentage more than the total population of City E?

(1) 8% (2) 10% (3) 12% (4) 14% (5) 16%

Directions (Q. 26-30): Following pie-charts show the distribution of the total number of students selected in an entrance exam from seven different schools in 2010 and 2011. (The total number of students selected from School S_7 in 2010 and 2011 are 180 and 270 respectively.)



2010



2011

26. The total number of students selected from all seven schools together in the year 2011 is approximately what per cent of the total number of students selected from all seven schools in 2010?

(1) 83.33% (2) 120% (3) 71.42% (4) 140% (5) None of these

27. What is the per cent rise in the number of students selected from School S_4 from 2010 to 2011 ?

(1) 60% (2) 63% (3) 68% (4) 72% (5) 75%

28. The total number of students selected from School S_5 and S_7 together in the year 2010 is approximately what per cent of the number of students selected from School S_2 in the year 2011?

(1) 178.5% (2) 247.5% (3) 287.5% (4) 312.5% (5) 342.5%

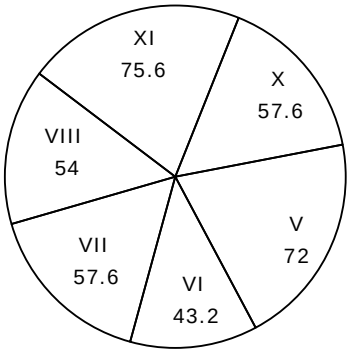
29. What is the difference between the average number of students selected from school S_1, S_2 and S_3 in the year 2010 and the average number of students selected from schools S_5, S_6 and S_7 in the year 2011 ?

(1) 9 (2) 12 (3) 15 (4) 18 (5) 21

30. In which of the following schools is the per cent rise or fall in the number of students selected from 2010 to 2011 the maximum?

(1) S_2 (2) S_3 (3) S_4 (4) S_5 (5) S_6

Directions (Q. 31 - 35): In the following pie - chart, the distribution of students of a school is given. The table gives the ratio of boys to girls among them. Total students studying in six different classes of the school is 1200.



Class	Boy : Girls
V	3 : 2
VI	3 : 1
VII	5 : 3
VIII	8 : 7
IX	4 : 3
X	1 : 1

31. What is the average of the number of girls studying in all six classes?
(1) 82 (2) 84 (3) 86 (4) 88 (5) None of these

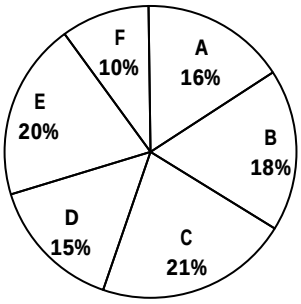
32. What is the difference between the total number of boys and the total number of girls in all six classes together?
(1) 208 (2) 210 (3) 212 (4) 214 (5) 216

33. In the given pairs of classes, which two classes have equal number of boys in them?
(1) V - VII (2) VII – X (3) VIII – X (4) IX – X (5) None of these

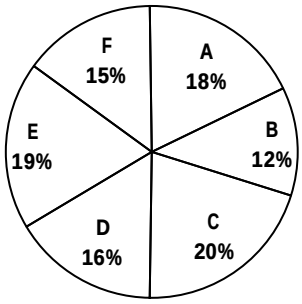
34. The difference between the number of boys and the number of girls in class V is what percentage of the difference between the number of boys and the number of girls in class VII??
(1) 60% (2) 80% (3) 100% (4) 120% (5) 150%

35. The total number of boys in class VI is what percentage more than the total number of girls in class X?
(1) 8.5% (2) 12.5% (3) 15% (4) 17.5% (5) None of these

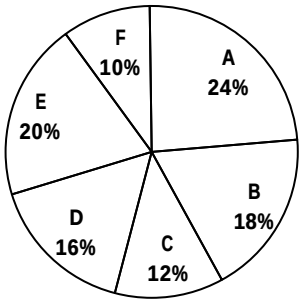
Directions (Q. 36-40): Following pie-chart shows the percentage distribution of total population of different cities and the distribution of literate males and females among them. Total population of all six cities together is 1.5 crore and the ratio of males to females among them is 8 : 7. Total literate males and females in all cities are 40 and 25 lakh respectively.



Total Population = 1.5 crore



Literate Males = 40 lakh



Literate Females = 25 lakh

36. What is the total illiterate population of City A?
(1) 10.8 lakh (2) 14.2 lakh (3) 16.8 lakh (4) 18 lakh (5) None of these

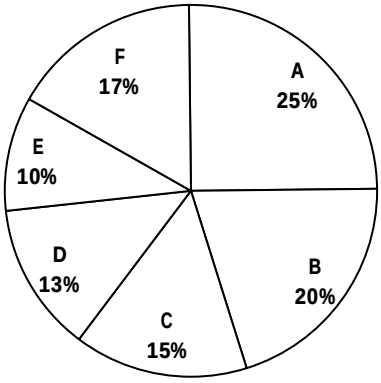
37. Total literate males of City E are what percentage of total literate females of City F?
(1) 32.89% (2) 118% (3) 196% (4) 240% (5) 304%

38. Total literate population of City E is what percentage of its total population?
(1) 25.33% (2) 16.66% (3) 26% (4) 42% (5) 64%

39. What is the difference between total illiterate population and total literate population of City C?
(1) 8.5 lakh (2) 9.5 lakh (3) 10.5 lakh (4) 11 lakh (5) 20.5 lakh

40. Total number of literate males of City D is what percentage more than the total number of literate female of City D?
(1) 60% (2) 38.46% (3) 61.538% (4) 120% (5) 160%

Directions (Q. 41-45): Following pie-chart shows the percentage distribution of items produced (I_1 and I_2) by six companies. The cost of total production (of both items) of all companies together is ` 24 crore. The given table shows the ratio of items I_1 and I_2 produced and percentage profit earned on these items.



	Ratio of production		Per cent profit earned	
	I_1	I_2	P_1	P_2
A	14	11	20	30
B	2	3	28	25
C	8	7	24	20
D	5	8	24	30
E	7	3	25	35
F	9	8	32	15

41. What is the total cost of production of item I_2 produced by companies E and F together?
(1) ` 2.12 crore (2) ` 2.44 crore (3) ` 2.64 crore (4) ` 2.86 crore (5) ` 2.96 crore

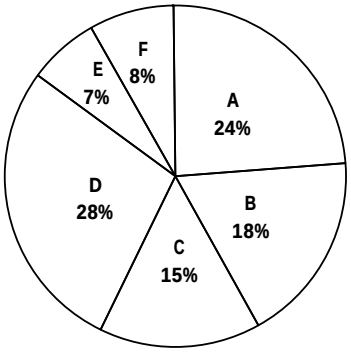
42. What is the difference between the cost of production of item I, by Company B and the cost of production of item I_2 by C?
(1) ` 21 lakh (2) ` 24 lakh (3) ` 27 lakh (4) ` 29.5 lakh (5) ` 32 lakh

43. What is the amount of profit earned by Company A on both items I_1 and I_2 together?
(1) ` 1.216 crore (2) ` 1.32 crore (3) ` 1.364 crore (4) ` 1.464 crore (5) ` 1.56 crore

44. What is the amount of profit earned on item I_2 by Company B and D together?
(1) ` 1.648 crore (2) ` 1.296 crore (3) ` 324 crore (4) ` 1.48 crore (5) ` 1.502 crore

45. What is the ratio of the profit earned by Company A to that earned by Company E on item I_1?
(1) 8 : 5 (2) 8 : 3 (3) 5 : 3 (4) 3 : 2 (5) None of these

Directions (Q. 46-50): Following pie-chart shows the percentage distribution of total items (I_1 and I_2) produced by six companies (A, B, C, D, E and F) and the table shows the ratio of I_1 to I_2 and percentage sale of I_1 and I_2.



Company	I_1	I_2	% Sold I_1	% Sold I_2
A	5	3	65%	62%
B	5	4	56%	78%
C	2	3	72%	66%
D	3	4	75%	60%
E	4	3	64%	55%
F	3	2	50%	48%

Total items (I_1 and I_2) = 16 lakh

46. What is the difference between the total items produced by Company A and B together and the total items produced by Company D?
(1) 3.84 lakh (2) 3.06 lakh (3) 2.96 lakh (4) 2.24 lakh (5) 1.78 lakh

47. What is the difference between the total number of I_1 items and the total number of I_2 items produced by Company F?
(1) 24800 (2) 25600 (3) 26300 (4) 27500 (5) 28300

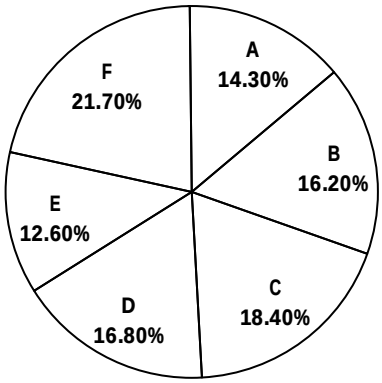
48. What is the average number of I_1 items sold by all six companies together?
(1) 89480 (2) 89580 (3) 89680 (4) 89780 (5) None of these

49. What is the difference between the number of I_1 items sold and the number of I_2 items sold by Company E?
(1) 14560 (2) 14480 (3) 14610 (4) 14340 (5) 14220

50. The number of I, items sold by Company A is what percentage of the number of I_1 items sold by Company F?

(1) 40.625% (2) 120% (3) 184.64% (4) 296.5% (5) None of these

Directions (Q. 51-55): Total number of cars sold by a company in six cities is 90000. Given pie-chart shows the percentage distribution of these cars sold in these cities. The table shows the proportion of three models among those cars sold.



[Total = 90000]

Model / City	M_1	M_2	M_3
A	7	7	4
B	2	5	2
C	3	3	4
D	4	3	2
E	2	2	1
F	3	2	5

51. What is the total number of M_2 cars sold in all cities together?

(1) 31155 (2) 31255 (3) 31355 (4) 31455 (5) 31555

52. What is the difference between M_1 cars sold in City D and City E?

(1) 2184 (2) 2204 (3) 2244 (4) 2284 (5) 2294

53. The number of M_1 cars sold in City D is approximately what percentage of the total number of M_3 cars sold in City A?

(1) 145% (2) 42.55% (3) 185% (4) 83.0% (5) 235%

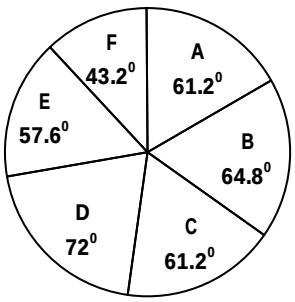
54. Total number of cars sold in City F is approximately what percentage more than the total number of cars sold in City B?

(1) 5.5% (2) 13% (3) 21% (4) 27.5% (5) 34%

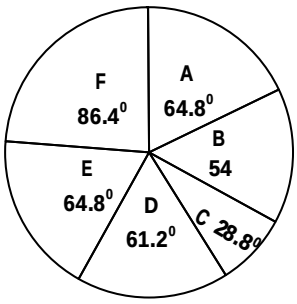
55. What is the ratio of the total number of cars sold in City C to the total number of M_2 cars sold in City D?

(1) 19:5 (2) 23:7 (3) 27:8 (4) 33:10 (5) 47:10

Directions (Q. 56-60): Following pie-charts show the distribution of items of six different types produced by a company in two years 2008 and 2009. Total number of items produced by the company in the year 2008 and 2009 are 48600 and 62500 respectively.



2008



2009

56. What is the total number of items of type C produced in the year 2008 and 2009 together?

(1) 12482 (2) 13262 (3) 14786 (4) 15200 (5) None of these

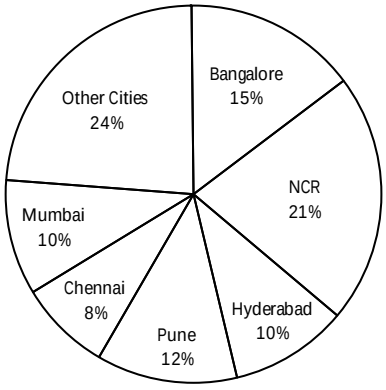
57. The number of type B items produced in 2008 is what percentage of the number of type B items produced in the year 2009? (approximate value)
(1) 78% (2) 84% (3) 87% (4) 90% (5) 93%

58. What is the ratio of the number of type D items produced in 2008 to the number of type F items produced in 2009?
(1) 13:17 (2) 83:116 (3) 81:125 (4) 103:147 (5) None of these

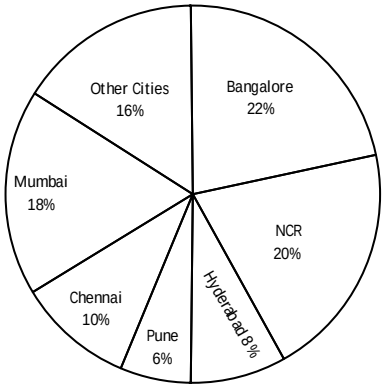
59. What is the total number of type A, B and C items produced by the company in the year 2008 and 2009 together?
(1) 48542 (2) 50897 (3) 51164 (4) 52324 (5) 54160

60. The number of type E items produced in the year 2009 is what per cent more than the number of type C items produced in 2009?
(1) 84% (2) 72% (3) 75% (4) 60% (5) None of these

Direction (Q. 61-65): Following pie-charts show the percentage distribution of job vacancies in IT industries in the year 2000 and 2010. In the year 2000, the total number of vacancies was 5.4 lakh, and in the year 2010, it was 8.6 lakh.



Year - 2000



Year - 2010

61. What is the difference between the number of vacancies available in Bangalore in the year 2010 and 2000?
(1) 108200 (2) 113120 (3) 118400 (4) 96400 (5) None of these

62. What is the average number of vacancies available in Hyderabad in the year 2000 and 2010?
(1) 41080 (2) 42740 (3) 58610 (4) 61400 (5) 62800

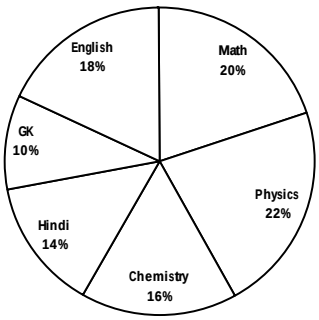
63. What is the total number of vacancies available in Chennai in 2000 and in Mumbai in the year 2010?
(1) 2.16 lakh (2) 2.04 lakh (3) 1.98 lakh (4) 1.92 lakh (5) None of these

64. If the number of vacancies in Pune is 48000 in the year 2010 and the percentage distribution is the same as given in the chart, what is number of vacancies available in NCR in 2010?
(1) 1.2 lakh (2) 1.32 lakh (3) 1.48 lakh (4) 1.60 lakh (5) 1.72 lakh

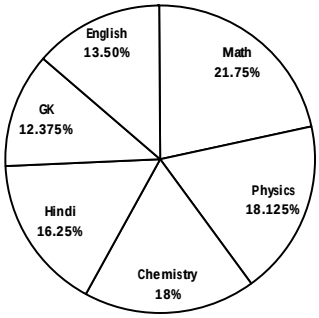
65. What is the percentage rise in vacancies available in Hyderabad from year 2000 to 2010? (Give approximate value only).
(1) 21.8% (2) 23.2% (3) 24.5% (4) 26.2% (5) 27.41%

Directions (Q. 66-70): Following pie-chart shows the percentage distribution of total marks scored by a student in Unit Test-I and Unit Test-2. In Unit Test-1 he got 750 marks and in Unit Test-2 he got 800.

Test - 1



Test - 2



66. What is the total marks scored by the student in Physics, Chemistry and Maths together in Unit Test–2?
(1) 461 (2) 463 (3) 465 (4) 467 (5) 469

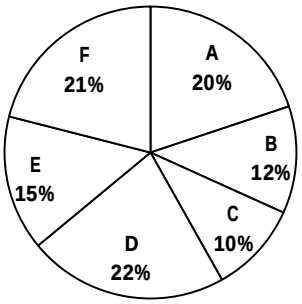
67. What is the difference of marks scored by him in Chemistry in Test–2 and that in English in Test-1?
(1) 36 (2) 15 (3) 9 (4) Nil (5) None of these

68. What is the percentage rise in marks scored by him in GK, from Unit Test–1 to Unit Test–2?
(1) 25% (2) 28% (3) 32% (4) 36% (5) 39%

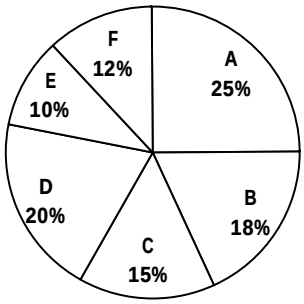
69. The marks scored by the student in Maths in Unit Test–2 is what percentage of the marks scored by him in the same subject in Unit Test–1 ?
(1) 86.2% (2) 92.5% (3) 96% (4) 116% (5) 124%

70. The marks scored by the student in Physics in both tests together is what percentage more than the marks scored by him in Hindi in both tests together? (Answer in approximate value)
(1) 27% (2) 30% (3) 32% (4) 35% (5) 37%

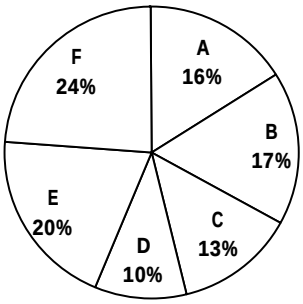
Directions (Q. 71-75): The total number of employees of a company is 8000, in which the ratio of Male to Female is 3 : 5 and Graduate to Non-graduate is 3 : 2. Following pie-chart shows the percentage distribution of these employees among different departments.



[Total = 8000]



Male



Graduate

71. What is the number of employees working in Department F who are non-graduate?
(1) 528 (2) 526 (3) 524 (4) 522 (5) 520

72. What is the total number of male graduate employees working in Department D?
(1) 600 (2) 1160 (3) 480 (4) 1280 (5) None of these

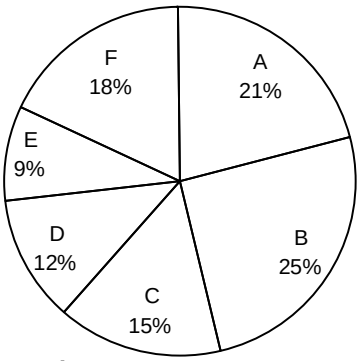
73. What is the difference between the total number of female employees and the total number of male employees working in the company?
(1) 1000 (2) 2000 (3) 3000 (4) 4000 (5) 5000

74. The number of graduate employees working in Department C is what percentage of the number of non-graduate employees working in Department E?

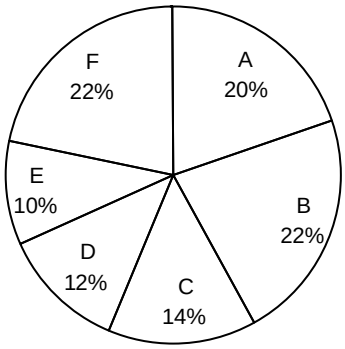
(1) 260% (2) 180% (3) 160% (4) 120% (5) 60%

75. The total number of female employees in Department F is what percentage more than the total number of male employees working in Department A?
(1) 72% (2) 74% (3) 76% (4) 78% (5) 80%

Directions (Q. 76-80) : In the given pie-charts the per cent distribution of sportspersons on the basis of their country is shown. Total persons who participated in the event is 2200 and the ratio of Male to Female among them is 15:7.



Total sports persons = 2200



Male players = 1500

76. The total Female participants from Country D is what percentage of the total Male participants from Country A?
(1) 21% (2) 24% (3) 28% (4) 31% (5) 36%

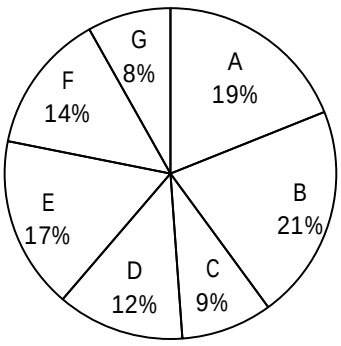
77. The total Male participants from Country B and F together is what percentage of the total participants of the event?
(1) 20% (2) 25% (3) 30% (4) 40% (5) 45%

78. The Male participants from Country E is what percentage more than the Female participants from Country C?
(1) 18% (2) 21% (3) 24% (4) 25% (5) 27%

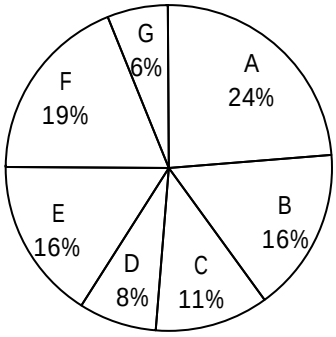
79. What is the ratio of the total participants from country D to the total female participants from Country E?
(1) 7 : 2 (2) 9 : 4 (3) 13 : 4 (4) 11 : 5 (5) None of these

80. If 20 additional female participants from Country C joined the event, the total number of female participants from Country C is what percentage of total participants from Country C?
(1) 30% (2) 40% (3) 50% (4) 60% (5) None of these

Directions (Q. 81-85) : Following pie-chart shows the percentage distribution of doctors from different cities and the second pie-chart shows the percentage distribution of female doctors among them. Total doctors in all seven cities together is 4800 and the ratio of male to female among them is 5 : 3.



Doctor



Female doctors

81. In how many cities is the number of female doctors more than the average number of female doctors, taking all cities together?
(1) Two (2) Three (3) Four (4) Five (5) Six

82. In which of the following cities is the number of male doctor less than the number of female doctors?
(1) A (2) B (3) D (4) E (5) F

83. In City A the number of female doctors is what percentage of the number of male doctors?
(1) 64% (2) 80% (3) 90% (4) 96% (5) 111%

84. What is the difference between the average number of male doctors of cities A, B and C together and the average number of male doctors of City E, F and G together?
(1) 88 (2) 96 (3) 100 (4) 108 (5) 112

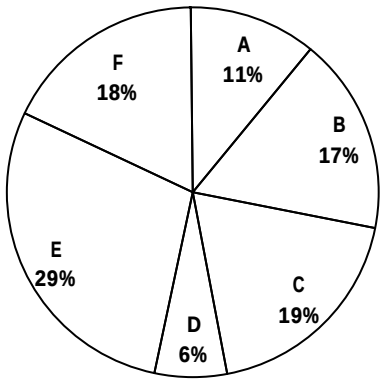
85. The total number of female doctors in City D is what per cent of the total number of male doctors in City B?
(1) 16% (2) 20% (3) 24% (4) 36% (5) 48%

Directions (Q. 86-90) : Study the following pie-chart and answer the following questions.

Percentagewise distribution of teachers in six different universities.

Total number of teachers = 6400

Percentage of Teachers



86. The number of teachers in University B is approximately what per cent of the total number of teachers in University D and University E together?.
(1) 55 (2) 59 (3) 49 (4) 45 (5) 65

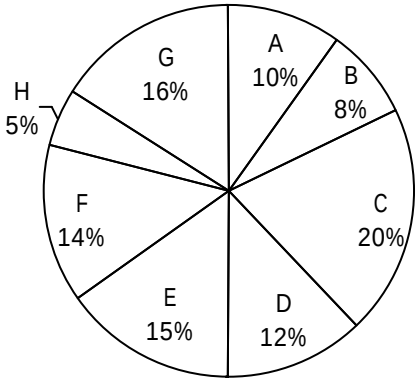
87. If twenty five per cent of the teachers in University C are females, what is the number of male teachers in University C?
(1) 922 (2) 911 (3) 924 (4) 912 (5) None of these

88. The difference between the total number of teachers in University A, University B and University C together and the total number of teachers in University D, University E and University F together is exactly equal to the number of teachers of which University?
(1) University A (2) University B (3) University C (4) University D (5) University F

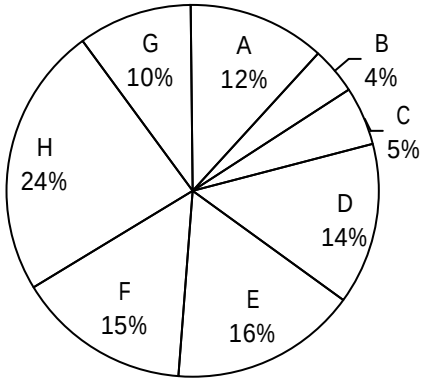
89. If one-thirtysixth of the teachers from University F are professors and the salary of each professor is ` 96000, what will be the total salary of all the professors together from University F?
(1) ` 307.2 lakh (2) ` 32.64 lakh (3) ` 3.072 lakh (4) ` 3.264 lakh (5) None of these

90. What is the average number of teachers in University A, University C, University D and University F together?
(1) 854 (2) 3546 (3) 3456 (4) 874 (5) None of these

Directions (Q. 91-95) : The following pie-chart shows the distribution of the number of cars of different models produced by a Company in 2005 and 2010.



Total cars in the year 2005 = 32000



Total cars in the year 2010 = 60000

91. What is the central angle made by cars of Model D, E and F in the year 2005?
(1) 147.6° (2) 158.2° (3) 164° (4) 167.5° (5) 172.5°

92. What is the percentage increase in number of Model A cars produced by the company from 2005 to year 2010?
(1) 75% (2) 90% (3) 112.5% (4) 125% (5) 137.5%

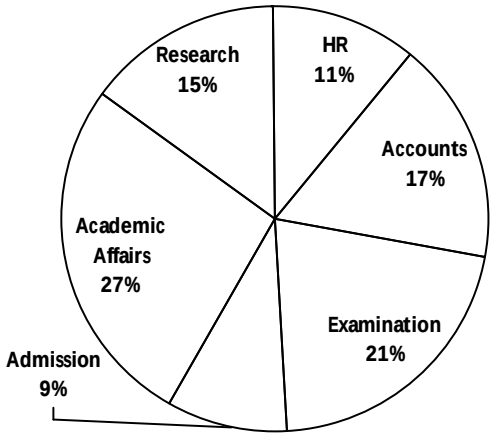
93. What is the ratio of the number of cars of model F in the year 2005 to the number of cars of model H in the year 2010?
(1) 16:35 (2) 10:27 (3) 15:38 (4) 16:45 (5) None of these

94. The number of cars of Model D in the year 2010 is what percentage of the number of Model C cars in the year 2005?
(1) 122.5% (2) 131.25% (3) 142.75% (4) 150% (5) 152.25%

95. The number of cars of Model G in the year 2010 is what percentage more than the number of same-model cars in 2005? (approximate value)
(1) 12% (2) 17% (3) 24% (4) 28% (5) 35%

Directions (Q. 96-100) : Study the following pie-chart and answer the following questions.

Total number of Employees = 12600 Percentagewise distribution of Employees



96. The number of employees in the department of Academic Affairs is approximately what per cent more than the number of employees in Examination department?
(1) 39 (2) 29 (3) 12 (4) 139 (5) 112

97. If 30 per cent of the number of employees of Research department is females, then what is the number of male employees in the Research department?
(1) 1343 (2) 1232 (3) 1323 (4) 1242 (5) None of these

98. The number of employees in Examination department is approximately what percentage of the total number of employees in the department of HR and Academic Affairs together?
(1) 69 (2) 65 (3) 61 (4) 55 (5) 51

99. What is the average number of employees in Accounts, Admission and Research department together?

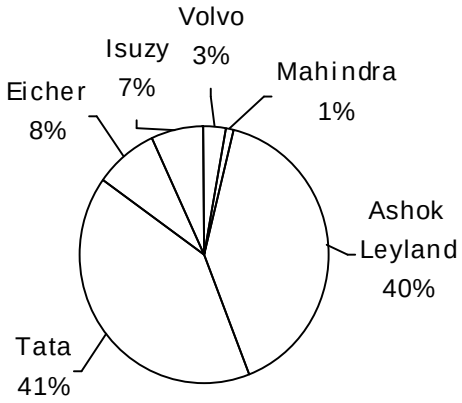
(1) 1722 (2) 1742 (3) 1786 (4) 1784 (5) None of these

100. What is the difference between the total number of employees in the department of HR and Admission together and the total number of employees in Accounts and Examination department together?

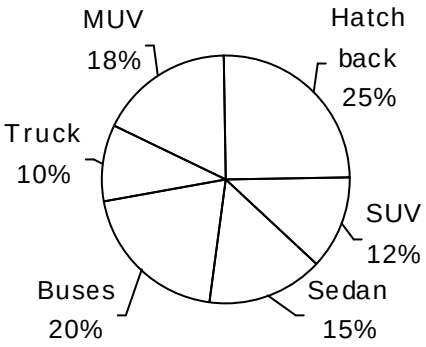
(1) 2268 (2) 2464 (3) 2286 (4) 2644 (5) None of these

Directions (Q. 101-105) : Study the graph below to answer the questions that follow.

% market share of sales of buses by six different companies in FY 2011-12



% of different models sold of Tata automobile company



101. The number of buses sold by Ashok Leyland is 40 thousand in FY 2010-11 and the percentage growth in sales of buses is $12\frac{1}{2}$% in FY 2011-12. How many units have been sold by Eicher in FY 2011 -12?

(1) 12000 units (2) 11000 units (3) 10000 units (4) 9000 units (5) None of these

102. What is the approximate percentage of buses sold by Isuzy with respect to that of SUVs sold by Tata in the FY 2011-12, if the number of units sold by Volvo is 3375?

(1) 28.5% (2) 31.5% (3) 35.5% (4) 32.5% (5) None of these

103. What is the ratio of the number of Eichers sold to the number of SUV sold by Tata in the year 2011-12?

(1) 2 : 5 (2) 1 : 2 (3) 1 : 3 (4) 3 : 7 (5) None of these

104. What is the approximate percentage of Volvos sold to that of MUVs sold by Tata in 2011-12?

(1) 10% (2) 7% (3) 8%

(4) Can't be determined (5) None of these

105. Referring to the data of question number 91, what is the average number of units of Volvo, Isuzy,

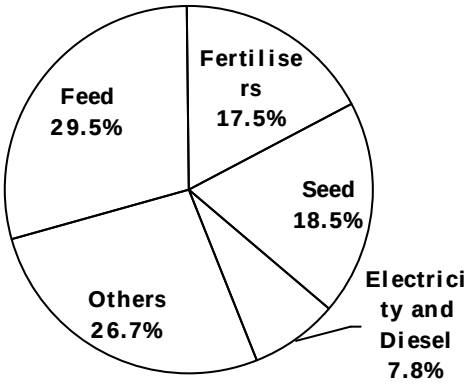
Eicher and Mahindra sold in FY 2011-12?

(1) 4035 (2) 2334.5 (3) 2137.5 (4) 5343.8 (5) None of these

Directions (Q. 106-100) : Study the given pie-charts carefully and answer the questions given below:

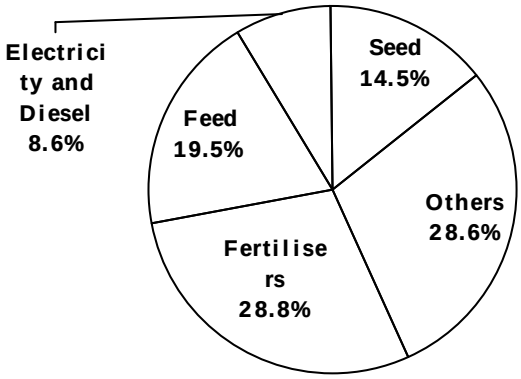
The pie-charts show the major expenses in agriculture under different heads in year 2000-01 and 2010-11

Total expenditure = ` 15432 crore



Year 2000-04

Total expenditure = ` 35349 crore



Year 2010-11

106. The total expenditure on electricity and diesel in year 2010-11 exceeded similar expenditure in year 2000-01 by approximately

(l) ` 1840crore (2) ` 1852crore (3) ` 7162 crore (4) ` 4544 crore (5) ` 6519 crore

107. The actual expenditure on fertilisers in year 2010-11exceeded the expenditure on the same in year 2000-01 by approximately

(1) 4 times (2) 3 times (3) 6 times (4) 5 times (5) 7 times

108. The expenditure on fertilisers and feed in year 2000-01 amounted to approximately

(1) ` 7253 crore (2) ` 8000crore (3) ` 7200crore (4) ` 3542 crore (5) None of these

109. The expenditure on feed in year 2010-11, as compared to that in year 2000-01, was approximately

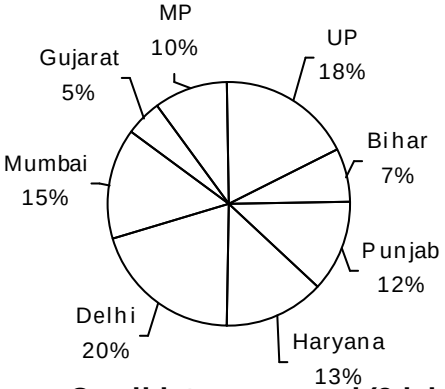
(1) 47% (less) (2) 53% (more) (3) 51% (more) (4) 53% (less) (5) 51% (less)

110. In terms of actual expenditure on electricity and diesel, the increase in year 2010-11, as compared to 2000-01, was roughly

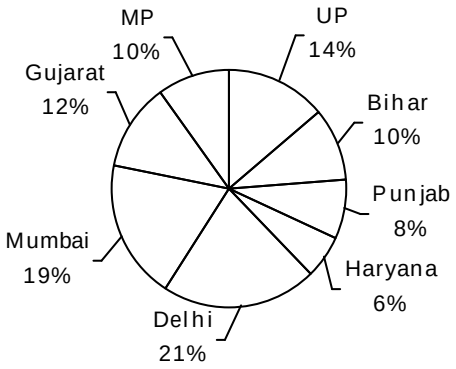
(1) 1.91 times (2) 1.53 times (3) 1.73 times (4) 1.83 times (5) 1.94 times

Directions (Q. 111-115) : Study the following pie-charts below and answer the questions that follow:

Classification of candidates from different states who appeared and qualified in a competitive exam



Candidates appeared (2 lakh)



Candidates qualified (16500)

111. What is the difference between the number of candidates who qualified from Gujarat, MP and UP together and that of those who qualified from Bihar and Punjab together?
(1) 3045 (2) 2603 (3) 2970 (4) 2556 (5) None of these

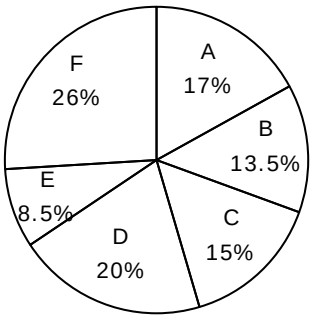
112. What is the percentage of the number of candidates who qualified from UP and Bihar together with respect to those who appeared from Delhi and Haryana?
(1) 9.6% (2) 6.8% (3) 6% (4) 8% (5) None of these

113. What is the ratio of the number of candidates who appeared from UP to that of those who qualified from Mumbai, Delhi, Haryana and Punjab together?
(1) 3:2 (2) 57:79 (3) 5:9 (4) 125:108 (5) None of these

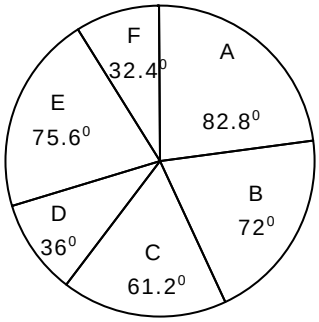
114. Which of the following states has the least percentage of number of candidates who qualified with respect to appeared from that state?
(1) Haryana (2) Delhi (3) Mumbai (4) Gujarat (5) UP

115. In which of the following states the percentage of the number of qualified candidates with respect to the number of appeared candidates is the maximum?
(1) Haryana (2) Gujarat (3) Mumbai (4) Delhi (5) UP

Directions (Q. 116-120): A total of 39 thousand students appeared in an entrance examination from six cities, in which the number of boys was 12000. The following pie-charts show the distribution of the total students and of the total boys from these cities who appeared in the exam.



TOTAL STUDENTS = 39000



BOYS = 12000

116. What is the total number of girls who appeared from City A?
(1) 3210 (2) 3440 (3) 3650 (4) 3870 (5) 3900

117. What is the difference between the total number of boys and the total number of girls who appeared in the exam from City E?
(1) 1725 (2) 1750 (3) 1775 (4) 1800 (5) 1825

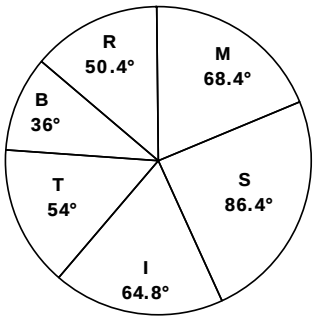
118. The total number of girls who appeared from City C is approximately what per cent of the total number of students who appeared from City D?
(1) 45% (2) 49% (3) 54% (4) 57% (5) 60%

119. What is the difference between the total number of boys who appeared from City A and that from City B?
(1) 320 (2) 330 (3) 340 (4) 350 (5) 360

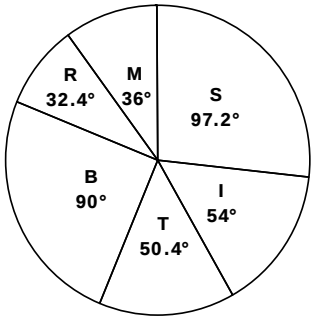
120. The number of girls who appeared from City F is approximately what per cent of the total number of girls who appeared from all six cities together?
(1) 31.5% (2) 32.5% (3) 33.5% (4) 34.5% (5) 35.5%

Directions (Q. 121-125) : The following pie-chart shows the distribution of expenditure of three companies A, B and C

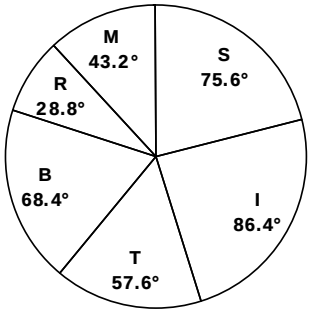
S → Salary, I → Infrastructure, T → Transportation, B → Bonus, R → Raw material, M → Miscellaneous and the total expenditures of Company A, B and C are ` 80 lakh, ` 90 lakh and ` 75 lakh respectively.



Expenditure of Company A
(` 80 lakh)



Expenditure of Company B
(` 90 lakh)



Expenditure of Company C (` 75 lakh)

121. What is the difference between (in `) the expenditure of Company A on salary and the expenditure of Company Bon raw material?
(1) 9.6 lakh (2) 11.1 lakh (3) 12.4 lakh (4) 13.4 lakh (5) 15.1 lakh

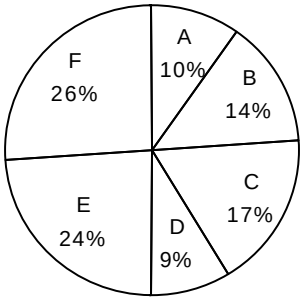
122. The expenditure of Company C on salary is approximately what percentage of the expenditure of Company A on transportation?
(1) 76.2% (2) 96% (3) 112.5% (4) 125% (5) 131%

123. What is the average expenditure (in `) of the three companies on infrastructure?
(1) 12.2 lakh (2) 15.3 lakh (3) 16.4 lakh (4) 17.5 lakh (5) None of these

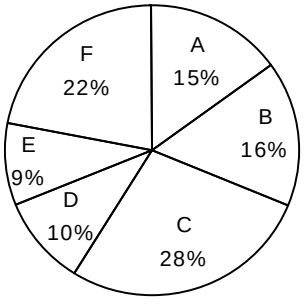
124. What is the ratio of the expenditure of Company A on infrastructure to the expenditure of Company B on transportation?
(1) 5 : 4 (2) 6 : 5 (3) 7 : 6 (4) 8 : 7 (5) 9 : 8

125. The expenditure of Company C on infrastructure is what percentage more or less than the expenditure of Company A on bonus?
(1) 80% (2) 100% (3) 120% (4) 125% (5) 150%

Directions (Q.126-130): The following pie-charts show the percentage distribution of the total number of readers of a newspaper in the year 2008 and 2012, among six different states.



Year 2008



Year 2012

126. If the number of readers from State D in the year 2008 and 2012 were 38700 and 57000 respectively, what is the difference between the total number of readers from State F in the year 2012 and that in 2008?

(1) 12400 (2) 13600 (3) 14200 (4) 15700 (5) 16800

127. If the ratio of the number of readers from State A in the year 2008 to that in 2012 was 2 : 5, what will be the ratio of the total number of readers from all six states together in year 2008 to that in 2012?

(1) 2 : 5 (2) 3 : 5 (3) 4 : 5 (4) 9 : 25 (5) 4 : 9

128. If the number of readers from State C in the year 2008 and that from State E in the year 2012 were 73100 and 51300 respectively, then what is the total number of readers from State B in the year 2008 and 2012 together?

(1) 1.324 lakh (2) 1.468 lakh (3) 1.514 lakh (4) 1.642 lakh (5) 1.728 lakh

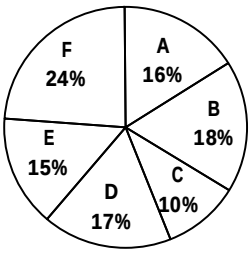
129. The percentage share of readers from State A in the year 2012 is approximately what per cent of the percentage share of readers from State E in the year 2008?

(1) 47.5% (2) 52.5% (3) 57.5% (4) 62.5% (5) None of these

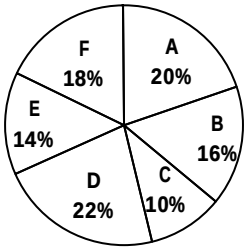
130. If the total number of readers from all six states together in year 2008 and 2012 were 4.3 lakh and 5.7 lakh respectively, what is the difference between the total number of readers from State B and State C together in the year 2008 and 2012?

(1) 1.175 lakh (2) 1.415 lakh (3) 1.625 lakh (4) 1.596 lakh (5) None of these

Directions (Q. 131-135): The following pie-charts show the percentage distribution of the total students passed from six different colleges. The second pie-chart shows the percentage distribution of the total girls passed from six different colleges. The total number of passed students is 7.5 thousand and 40% of them are girls.



Total students = 7500



Total girls = 3000

131. In which of the following colleges is the ratio of the number of passed boys to the number of passed girls 1:1?

(1) A (2) B (3) C (4) D (5) E

132. In which of the following colleges is the number of passed girl students more than the number of passed boy students?

(1) B (2) C (3) D (4) E (5) F

133. In which of the following colleges the difference between the number of passed boy students and the number of passed girl students is the maximum?

(1) B (2) C (3) D (4) E (5) F

134. The boy students who passed from College E is approximately what per cent of the girl students passed from College C?

(1) 165% (2) 185% (3) 205% (4) 235% (5) 275%

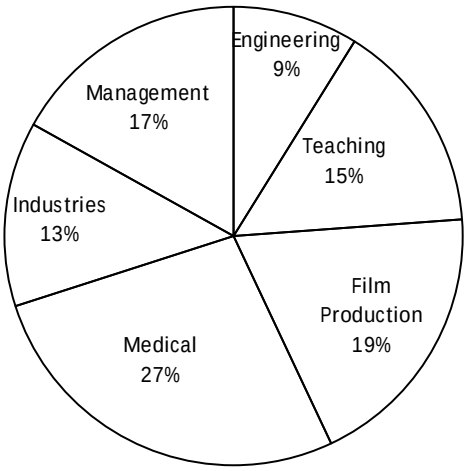
135. The number of boys who passed from College B is approximately what per cent more or less than the number of girls who passed from the same college?

(1) 67% (2) 72% (3) 81% (4) 87% (5) 92%

Directions (Q.136-140) : Study the following pie-chart and answer the following questions.

Percentage distribution of employees in six different professions

Total number of employees = 26800



136. What is the difference between the total number of employees in teaching and medical profession together and the number of employees in management profession?
(1) 6770 (2) 7700 (3) 6700 (4) 7770 (5) 7670

137. In management profession three-fourths of the number of employees are females. What is the number of male employees in management profession?
(1) 1239 (2) 1143 (3) 1156 (4) 1289 (5) 1139

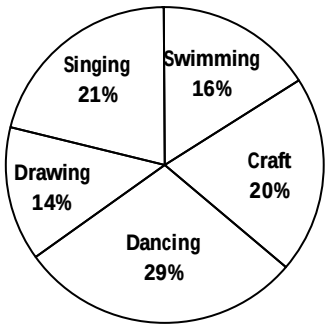
138. 25% of employees from film production profession went on a strike. What is the number of employees from film production who did not participate in the strike?
(1) 3271 (2) 3819 (3) 3948 (4) 1273 (5) 1246

139. What is the total number of employees in engineering profession and industries together?
(1) 5698 (2) 5884 (3) 5687 (4) 5896 (5) 5487

140. In teaching profession if three-fifths of the teachers are not permanent, what is the number of permanent teachers in the teaching profession?
(1) 1608 (2) 1640 (3) 1764 (4) 1704 (5) 1686

Directions (Q. 141-145): Study the charts carefully to answer the following questions:

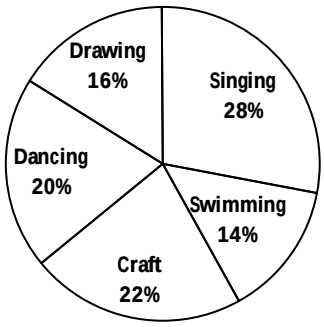
Percentage of students enrolled in different activities in a school



Total students = 3000

Percentage break-up of girls enrolled in these activities

[redacted]



Total Girls = 1750

141. What is the ratio of the number of girls to boys enrolled in Swimming?
(1) 49:47 (2) 97:49 (3) 51:31 (4) 31:51 (5) None of these

142. The number of girls enrolled in Dancing form what per cent of the total number of students in the school (round off two digits after decimal)?
(1) 12.95% (2) 11.67% (3) 16.75% (4) 19.65% (5) None of these

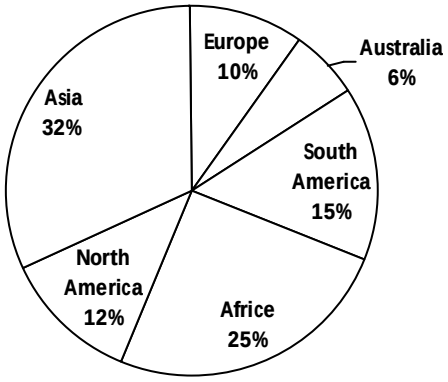
143. What is the total number of girls enrolled in Swimming and Drawing together?
(1) 625 (2) 550 (3) 490 (4) 525 (5) 455

144. How many boys are enrolled in Singing and Craft together?
(1) 610 (2) 590 (3) 640 (4) 720 (5) 355

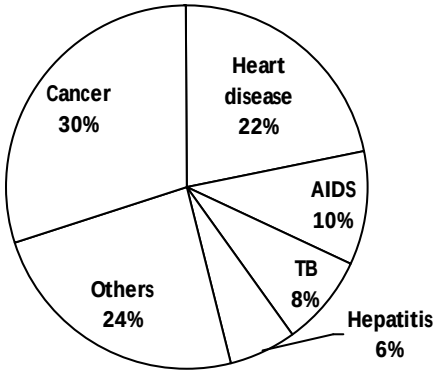
145. What is the approximate percentage of boys in the school?
(1) 42% (2) 56% (3) 49% (4) 58% (5) None of these

Directions (Q. 146-150): Study the following pie-charts carefully and answer the questions given below.

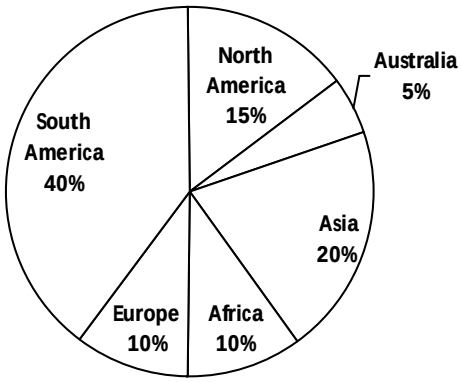
Total population of the world = 700 crore
Number of patients = 10% of the total population



Percentage of all the patients in various continents



Percentage of patients of various diseases in the world



Percentage of cancer patients in various continents

146. The number of cancer patients in Australia is what per cent of the total number of patients of heart disease in the world?
(1) 6.81% (2) 7.85% (3) 5.49% (4) 6.01% (5) 7.98%

147. If the number of cancer patients in South America decreases by 25%, what is the percentage decrease in total number of cancer patients in the world?
(1) 4% (2) 8% (3) 3% (4) 6% (5) 5%

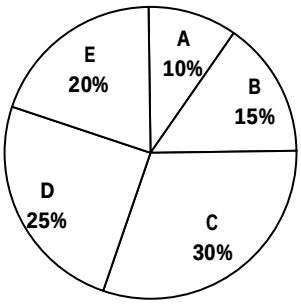
148. What is the ratio of the total number of patients in Africa to the total number of cancer patients in Asia and North America together?
(1) 350 : 347 (2) 360 : 347 (3) 350 : 334 (4) 352 : 250 (5) None of these

149. If the total number of patients increases by 10% every year in Europe then what is the difference between the total number of patients in Europe after 2 years and the total number of cancer patients in South America now?
(1) 8 lakh (2) 9 lakh (3) 6 lakh (4) 7 lakh (5) 5 lakh

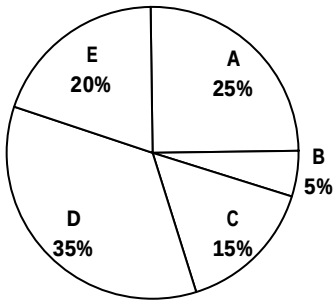
150. If the number of hepatitis patients increases by 6% and that of heart disease ones by 22%, what will be their new ratio?
(1) 1110 : 2396 (2) 1245 : 4925 (3) 1113 : 4697 (4) 1346 : 3411 (5) 1496 : 2541

Directions (Q. 151-155): Study the following pie-charts carefully and answer the questions given below:

Disturibution of candidates studying Arts and Commerce in five different Institutions A, B, C, D and E



Total number of students studying Arts = 5000



Total number of students studying Commerce = 6000

151. How many students study Arts and Commerce in Institute D and E together?
(1) 4525 (2) 5550 (3) 6550 (4) 5525 (5) 6750

152. What is the ratio of the number of students studying Arts in Institute D to that studying Commerce in Institute C?
(1) 3:5 (2) 5:3 (3) 17:25 (4) 25:17 (5) 25:18

153. The total number of students studying both Commerce and Arts in Institute B and E together is what per cent of the total number of students studying Arts?
(1) 71% (2) 61% (3) 72% (4) 51% (5) None of these

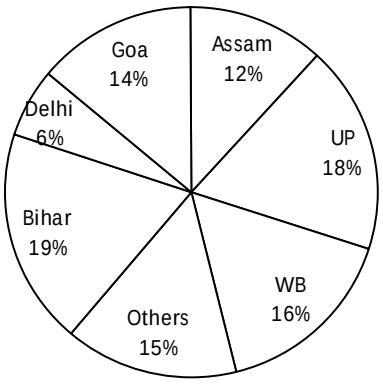
154. The number of students studying Arts in Institute A is approximately what per cent of the total number of students studying Commerce in Institute B?
(1) 167% (2) 143% (3) 198% (4) 189% (5) 193%

155. What is the ratio of the total number of students studying Arts in Institute C to that studying Commerce in Institute A and E together?
(1) 9:5 (2) 8:9 (3) 5:9 (4) 4:9 (5) 2:3

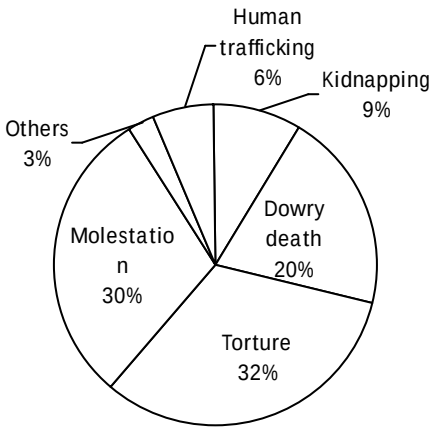
Directions (Q. 156-160): Study the following pie-charts carefully and answer the given questions.

The following pie-charts show the crimes against women in the year 2012

Total number of cases registered as crimes against women in2012 = 101akh



Statewise % crimes against women in 2012



Incidence of crimes committed against women in 2012

Note: The proportion of the nature of crimes remains the same for each state.

156. During 2012, the number of registered cases in WB and Goa together exceeded the number of cases in Assam and Others together by (in numbers)
(1) 32000 (2) 30000 (3) 31000 (4) 37000 (5) None of these

157. Approximately how many cases of Dowry deaths were registered per day in Goa in the year 2012?
(1) 77 (2) 72 (3) 78 (4) 79 (5) 70

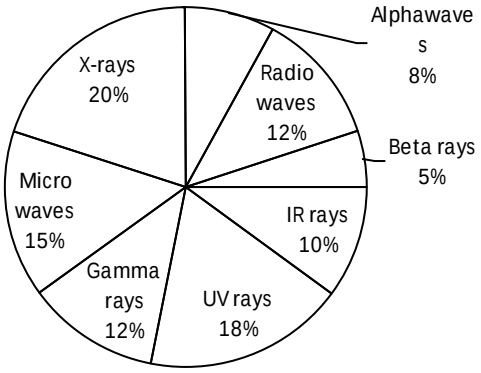
158. The number of cases of Human trafficking registered in UP exceeded that in WB by
(1) 1652 (2) 1700 (3) 1400 (4) 1200 (5) None of these

159. Which of the following crimes against women in Bihar is less than 5800?
(1) Others (2) Kidnapping (3) Dowry death (4) Torture (5) None of these

160. During 2012, the number of cases of Torture and Others together exceeded the number of cases of Molestation by
(1) 49000 (2) 30000 (3) 35000 (4) 45000 (5) None of these

Directions (Q. 161-165): Study the following pie-chart and answer the questions given below:

Constituents of sun rays received in 1 minute



Total sun rays received in 1 minute = 3600 units

161. If the human body can withstand a maximum 8750 units of IR rays when exposed to the sun continuously, then what is the maximum time that any one can stand in the sun without crossing the threshold limit of IR rays?
(1) 24.3 minutes (2) 45 minutes (3) 20 minutes (4) 15 minutes (5) 30 minutes

162. The amount of UV rays received in 5 minutes is how many times the amount of IR rays received in 2 minutes?
(1) 4 (2) 2.1 (3) 4.5 (4) 3.6 (5) 5.2

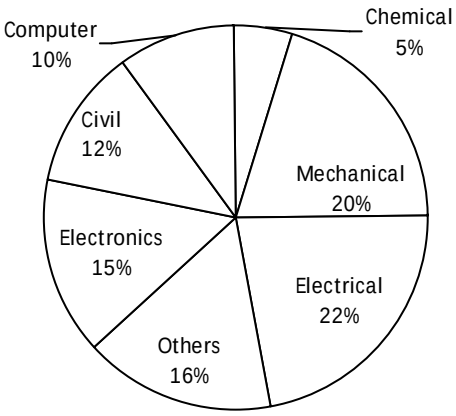
163. If presently the ozone layer in the atmosphere reflects 55% of the sun rays then what would be the amount of Gamma rays received in one minute, if the ozone layer were to disappear completely?
(1) 342 (2) 432 (3) 531 (4) 135 (5) 351

164. The amount of microwaves received in 4 minutes is how much more/less than the amount of Alpha rays received in 3 minutes?
(1) 1435 (2) 1142 (3) 1378 (4) 1296 (5) 1526

165. How many minutes of exposure to the sun in a day would be enough to ensure that the body receives enough amount of vitamin D, given that the body requires 40 units of vitamin D every day and that 30 units of Beta rays generate 1 unit of vitamin D?
(1) $4\frac{2}{3}$ (2) $3\frac{1}{3}$ (3) $5\frac{1}{3}$ (4) $6\frac{2}{3}$ (5) $7\frac{1}{3}$

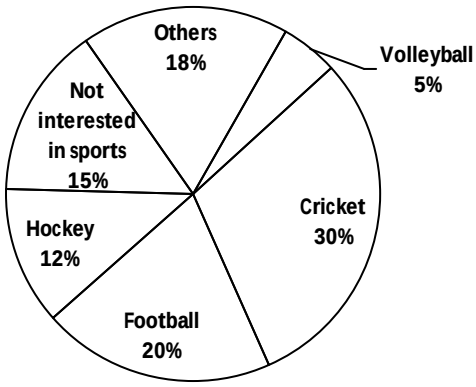
Directions (Q, 166-170): Study the pie-charts given below and answer the following questions.

Percentage of students studying in various branches of an Engineering college



Total students = 2500

Percentage of students interested in various sports of the Engineering college



Total students = 2500

166. If 10% of Civil students, 20% of Mechanical students and 12% of Electrical students are not interested in sports then what is the average number of students of these branches who are interested in sports? (Calculate approximate value)
(1) 362 (2) 378 (3) 315 (4) 385 (5) 316

167. What is the ratio of the number of students who play Volleyball to the number of students who study in Mechanical branch?
(1) 2 : 3 (2) 1 : 4 (3) 4 : 1 (4) 3 : 2 (5) 5 : 6

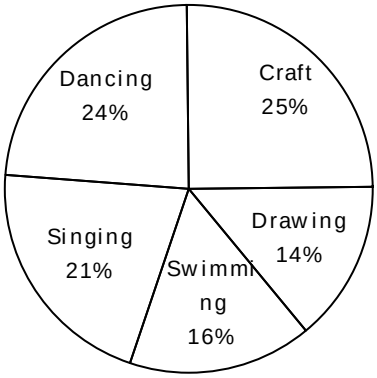
168. If 20% students of Electronics branch fail, and out of these 60% are not interested in sports, then the number of failed Electronics students who are not interested in sports is what per cent of the total number of students who are not interested in sports?
(1) 14% (2) 18% (3) 16% (4) 22% (5) 12%

169. If 50% Mechanical students and 40% Electrical students are interested in Football then what is their ratio?
(1) 25 : 22 (2) 21 : 19 (3) 22 : 37 (4) 23 : 47 (5) 17 : 11

170. The percentage of students who are interested in other games are same (20%) in all branches. What is the difference between the number of students of Electrical and Mechanical branches who are interested in other games?
(1) 12 (2) 18 (3) 10 (4) 16 (5) 15

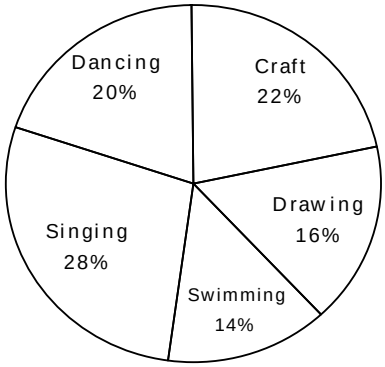
Directions (Q. 171-175): Study the following pie-charts carefully to answer the given questions.

Percentage of students enrolled for different activities in School N



total number of students = 3000

Percentage break-up of the girls enrolled for these activities



Total number of girl students = 1750

171. The number of girls enrolled for Dancing forms what per cent of the total number of students in School N?(Rounded off to two digits after decimal)
(1) 12.35 (2) 14.12 (3) 11.67 (4) 10.08 (5) None of these

172. How many boys are enrolled for Singing and Craft together?
(1) 505 (2) 610 (3) 485 (4) 420 (5) 705

173. What is the ratio of the number of girls to the number of boys enrolled for Swimming?
(1) 47 : 49 (2) 23 : 29 (3) 29 : 23 (4) 49 : 47 (5) None of these

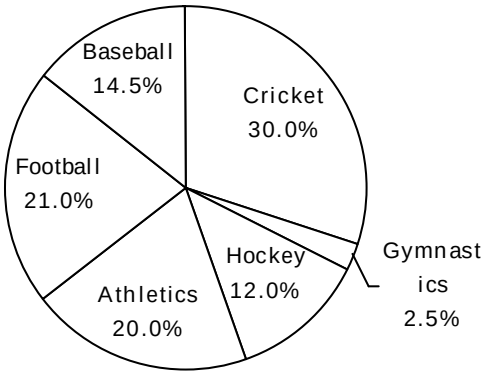
174. What is the total number of girls enrolled for Swimming and Drawing together?
(1) 480 (2) 525 (3) 505 (4) 495 (5) None of these

175. What is the approximate percentage of boys in the school?
(1) 34 (2) 56 (3) 28 (4) 50 (5) 42

Directions (Q. 176-180): Study the information carefully and answer the questions that follow:

The following pie-chart shows the percentage of employees of Bank X who are interested in different sports activities.

Total number of employees = 65000



176. The number of employees interested in Athletics is approximately what per cent of the number of employees interested in Baseball?
(1) 138% (2) 128% (3) 148% (4) 127% (5) None of these

177. What is the difference between the number of employees interested in Cricket and the total number of employees interested in Baseball, Hockey and Gymnastics together?
(1) 6500 (2) 650 (3) 6565 (4) 6050 (5) 1300

178. What is the ratio of employees interested in Gymnastics to the number of employees interested in Baseball?
(1) 5 : 39 (2) 29 : 5 (3) 25 : 29 (4) 14 : 29 (5) 5 : 29

179. The number of employees interested in Hockey is approximately what per cent of the employees interested in Football, Atheletics and Baseball together?
(1) 32% (2) 42% (3) 22% (4) 52% (5) 18%

180. The number of employees interested in Gymnastics is what percentage of the number of employees interested in Hockey? (Calculate approximate percentage)
(1) 21% (2) 31% (3) $16\frac{2}{3}\%$ (4) $33\frac{1}{3}\%$ (5) 50%

SHORT ANSWER

1. (1)	2. (3)	3. (4)	4. (2)	5. (3)	6. (3)	7. (1)	8. (2)
9. (5)	10. (1)	11. (2)	12. (5)	13. (4)	14. (3)	15. (2)	16. (4)
17. (5)	18. (3)	19. (3)	20. (1)	21. (1)	22. (2)	23. (5)	24. (2)
25. (1)	26. (2)	27. (3)	28. (4)	29. (1)	30. (5)	31. (1)	32. (5)
33. (3)	34. (3)	35. (2)	36. (1)	37. (5)	38. (4)	39. (2)	40. (1)
41. (3)	42. (2)	43. (4)	44. (2)	45. (1)	46. (4)	47. (2)	48. (3)
49. (1)	50. (5)	51. (5)	52. (1)	53. (5)	54. (5)	55. (2)	56. (2)
57. (5)	58. (3)	59. (2)	60. (5)	61. (1)	62. (4)	63. (3)	64. (4)
65. (5)	66. (2)	67. (3)	68. (3)	69. (4)	70. (3)	71. (1)	72. (5)
73. (2)	74. (1)	75. (3)	76. (3)	77. (3)	78. (4)	79. (5)	80. (2)
81. (3)	82. (5)	83. (3)	84. (3)	85. (2)	86. (3)	87. (4)	88. (4)
89. (5)	90. (5)	91. (1)	92. (4)	93. (5)	94. (2)	95. (2)	96. (2)
97. (3)	98. (4)	99. (1)	100. (1)	101. (4)	102. (1)	103. (5)	104. (3)
105. (4)	106. (1)	107. (2)	108. (1)	109. (3)	110. (2)	111. (3)	112. (3)
113. (5)	114. (1)	115. (2)	116. (4)	117. (1)	118. (2)	119. (5)	120. (3)
121. (2)	122. (5)	123. (2)	124. (4)	125. (4)	126. (2)	127. (2)	128. (3)
129. (4)	130. (1)	131. (1)	132. (3)	133. (5)	134. (4)	135. (3)	136. (3)
137. (5)	138. (2)	139. (4)	140. (1)	141. (1)	142. (2)	143. (4)	144. (5)
145. (1)	146. (1)	147. (3)	148. (5)	149. (4)	150. (3)	151. (2)	152. (5)
153. (5)	154. (1)	155. (3)	156. (2)	157. (1)	158. (4)	159. (1)	160. (5)
161. (1)	162. (3)	163. (2)	164. (4)	165. (4)	166. (4)	167. (2)	168. (5)
169. (1)	170. (3)	171. (3)	172. (1)	173. (4)	174. (2)	175. (5)	176. (1)
177. (2)	178. (5)	179. (3)	180. (1)				

DETAIL EXPLANATIONS

1. 1; Total number of people in all six cities

$= \frac{1526000 \times 100}{21.8} = 7000000$

$\therefore$ Total population of City A

$= 7000000 \times \frac{21}{100} = 1470000$

$\text{Male}_A = 1470000 \times \frac{51.1}{100} = 751170$

$\therefore \text{Female}_A = 1470000 - 751170 = 718830$

2. 3; $\text{Total}_B = 7000000 \times \frac{10.6}{100} = 742000$

$\because$ Males are 53.2%, so females
$= 100 - 53.2 = 46.8\%$
$\therefore$ Diff $= 53.2 - 46.8 = 6.4\%$

$\therefore$ Reqd answer $= 742000 \times \frac{6.4}{100} = 47488$

3. 4; $\text{Female}_E = 7000000 \times \frac{21.8}{100} \times \frac{(100 - 49.2)}{100}$

$= 700 \times 21.8 \times 50.8 = 775208$

$\text{Female}_F = 7000000 \times \frac{7.5}{100} \times \frac{(100 - 47.9)}{100}$

$= 700 \times 7.5 \times 52.1 = 273525$

$\therefore$ Reqd % $= \frac{775208}{273525} \times 100 = 283.4 \approx 283.5\%$

4. 2; Total males $= \frac{7000000}{100 \times 100}$ {21 × 51.1 + 10.6 × 53.2 + 23.7 × 52.9 + 15.4 × 53.8 + 7.5 × 47.9 + 21.8 × 49.2}
$= 700$ {1073.1 + 563.92 + 1253.73 + 828.52 + 359.25 + 1072.56}
$= 700 \times 5151.08 = 3605756$

5. 3; Total population in all six cities = 7000000
Total females in all six cities
$= 7000000 - 3605756 = 3394244$

$\therefore$ Reqd % $= \frac{3394244}{7000000} \times 100 = 48.489 \approx 48.5\%$

6. 3; $A_{M1} = 3.2 \times \frac{20}{100} \times \frac{13}{20} \times \frac{25}{100} = 0.104$ crore

7. 1; $B_{M2} = 3.2 \times \frac{14}{100} \times \frac{5}{14} \times \frac{30}{100} = 0.048$

$C_{M2} = 3.2 \times \frac{22}{100} \times \frac{5}{11} \times \frac{24}{100} = 0.0768$

$\therefore$ Sum = 0.048 + 0.0768 = 0.1248

8. 2; $(\text{Production-}M_1) = 3.2 \times \frac{13}{100} \times \frac{6}{13} = \frac{3.2 \times 6}{100}$

$(\text{Production-}M_2) = 3.2 \times \frac{21}{100} \times \frac{10}{21} = \frac{3.2 \times 10}{100}$

$\therefore$ Ratio $= \frac{6}{10} = \frac{3}{5}$

9. 5; $C_{M1} = 3.2 \times \frac{22}{100} \times \frac{6}{11} \times \frac{20}{100} = 0.0768$ crore

$E_{M2} = 3.2 \times \frac{10}{100} \times \frac{3}{5} \times \frac{21}{100} = 0.04032$ crore

$\therefore$ Diff = 0.0768 - 0.04032 = 0.03648

10. 1; $\%P_{BM1} = 28\%, \%P_{DM2} = 25\%$

$\therefore$ Reqd % $= \frac{28}{25} \times 100 = 112\%$

11. 2; Total students $= 30000 \times 0.18 = 5400$
Girls $= 12000 \times 0.14 = 1680$
$\therefore$ Boys $= 5400 - 1680 = 3720$
$\therefore$ Diff $= 3720 - 1680 = 2040$

12. 5; $\text{Total}_c = 30000 \times 0.23 = 6900$
$\text{Girls}_c = 12000 \times 0.18 = 2160$
$\text{Total}_E = 30000 \times 0.16 = 4800$
$\text{Girls}_E = 12000 \times 0.20 = 2400$
$\therefore \text{Boys}_E = 4800 - 2400 = 2400$

$\therefore$ Reqd % $= \frac{2160}{2400} \times 100 = 90\%$

13. 4; $\text{Boys}_A = (30000 \times 0.10) - (12000 \times 0.15)$
$= 3000 - 1800 = 1200$
$\text{Boys}_B = (30000 \times 0.09) - (12000 \times 0.12)$
$= 2700 - 1440 = 1260$
$\text{Boys}_c = (30000 \times 0.23) - (12000 \times 0.18)$
$= 6900 - 2160 = 4740$
$\therefore$ Avg $= (1200 + 1260 + 4740) \div 3$
$= 7200 \div 3 = 2400$

14. 3; $\text{Girls}_F = 12000 \times 0.21 = 2520$
$\text{Girls}_A = 12000 \times .15 = 1800$

$\therefore$ rise% $= \frac{(2520 - 1800)}{1800} \times 100 = \frac{72000}{1800} = 40\%$

15. 2; $\text{Boys}_F = (30000 \times 0.24) - (12000 \times 0.21)$
$= 7200 - 2520 = 4680$
$\text{Boys}_D = (30000 \times 0.18) - (12000 \times 0.14)$
$= 5400 - 1680 = 3720$

$\therefore$ Reqd % = $\frac{(4680-3720)}{3720} \times 100$

$= \frac{96000}{3720} = 25.8\%$

16. 4; Diff = 26% – 6% = 20%
Half = 10%
$\therefore$ 10% of 6500 = 650

17. 5; $\frac{26-18}{18} \times 100 = 44.44\%$

18. 3; 18% + 13% + 6% = 37
37% of 6500 = 2405

19. 3; Reqd ratio = 13 : 7

20. 1; Reqd % = $\frac{30}{18} \times 100 = 166.67\%$

21. 1; Population of A = 1287000
$\therefore$ Total population of all six cities

$= \frac{1287000}{23.4} \times 100 = 5500000$

$\therefore \text{Adult}_c = 5500000 \times \frac{8.4}{100} \times \frac{73}{100} = 337262$

22. 2; A = 55 × $\frac{23.4}{100}$ lakh, D = 55 × $\frac{18.9}{100}$ lakh

$\therefore$ Reqd % = $\frac{23.4}{18.9} \times 100 = 123.8$

23. 5; In City F, adult population is 72%. So, population of non-adults is 28%.

$\therefore$ Reqd answer = $5500000 \times \frac{10.2}{100} \times \frac{28}{100}$

= 157080

24. 2; $\text{Adult}_{(B+C)} = \frac{5500000}{100 \times 100} \{21.6 \times 68 + 8.4 \times 73)$

= 550 × (1468.8 + 613.2) = 550 × 2082
Total population of all six cities = 5500000

$\therefore$ Reqd % = $\frac{550 \times 2082}{5500000} \times 100$

$= 20.82\% \approx 21\%$

25. 1; Total population of D = 18.9% of 55 lakh
Total population of E = 17.5% of 55 lakh

$\therefore$ Reqd% = $\frac{(18.9-17.5) \times 100}{17.5} = \frac{140}{17.5} = 8\%$

26. 2; $\text{Total}_{2010} = 180 \times \frac{360°}{43.2°} = 1500$

$\text{Total}_{2011} = 270 \times \frac{360°}{54°} = 1800$

$\therefore$ Reqd % = $\frac{1800}{1500} \times 100 = 120\%$

27. 3; $S_4(2010) = 1500 \times \frac{36°}{360°} = 150$

$S_4(2011) = 1800 \times \frac{50.4°}{360°} = 252$

$\therefore$ % rise = $\frac{252-150}{150} \times 100 = \frac{10200}{150} = 68\%$

28. 4; $S_5 + S_7 = 1500 \times \frac{(64.8° + 43.2°)}{360°}$

$= \frac{1500 \times 108°}{360°} = 450$

$S_2 = 1800 \times \frac{28.8°}{360°} = 144$

$\therefore$ Reqd% = $\frac{450}{144} \times 100 = 312.5\%$

29. 1; Avg of S_1, S_2 and S_3

$= \frac{(75.6 + 50.4 + 57.6)}{360 \times 3} \times 1500 = 255$

Avg of S_5, S_6 and S_7

$= \frac{(57.6 + 46.8 + 54)}{360 \times 3} \times 1800 = 264$

$\therefore$ Diff = 264 – 255 = 9

30. 5; $S_1 = \frac{(414-315)}{315} \times 100 = 31.42\%$

$S_2 = \frac{(210-144)}{210} \times 100 = 31.42\%$

$S_3 = \frac{(240-198)}{240} \times 100 = 17.5\%$

$S_4 = \frac{(252-150)}{150} \times 100 = 68\%$

$S_5 = \frac{(288-270)}{270} \times 100 = 6.66\%$

$S_6 = \frac{(234-135)}{135} \times 100 = 73.33\%$

$S_7 = \frac{(270-180)}{180} \times 100 = 50\%$

31. 1; Total students in class V

$= \frac{72}{360} \times 1200 = 240$

$\therefore$ Girls $= \frac{240}{5} \times 2 = 96$

Total students in class VI

$= \frac{43.2}{360} \times 1200 = 144$

$\therefore$ Girls $= \frac{144}{4} \times 1 = 36$

Similarly, $VII_{girls} = 72$, $VIII_{girls} = 84$,
$IX_{girls} = 108$, $X_{girls} = 96$

$\therefore$ Avg $= \frac{96+36+72+84+108+96}{6} = \frac{492}{6}$

$= 82$

32. 5; Total girls = 492
Total boys = 1200 – 492 = 708
Diff = 708 – 492 = 216

33. 3; $Total_{VIII} = \frac{54}{360} \times 1200 = 180$

$\therefore$ Boys $= \frac{180}{15} \times 8 = 96$

$Total_X = \frac{57.6}{360} \times 1200 = 192$

$\therefore$ Boys $= \frac{192}{2} \times 1 = 96$

34. 3; $Total_V = \frac{72}{360} \times 1200 = 240$

$\therefore Boys_V = \frac{240}{5} \times 3 = 144$, $Girls_V = 96$

$\therefore$ Diff = 48

$Total_{VII} = \frac{57.6}{360} \times 1200 = 192$

$\therefore Boys_{VII} = \frac{192}{8} \times 5 = 120$, $Girls_{VII} = 72$

$\therefore$ Diff = 48

$\therefore$ Reqd% $= \frac{48}{48} \times 100 = 100\%$

35. 2; $Boys_{VI} = 108$
$Girls_X = 96$

$\therefore$ Reqd% $= \frac{108-96}{96} \times 100 = \frac{1200}{96} = 12.5\%$

36. 1; Total population of A

$= 1.5 \times \frac{16}{100} = 0.24$ crore $= 2400000$

Total literate males of A

$40 \times \frac{18}{100} = 7.2$ lakh $= 720000$

Total literate females of A

$= 25 \times \frac{24}{100} = 6$ lakh $= 600000$

$\therefore$ Total illiterate population
$= 2400000 - (720000 + 600000) = 1080000$

37. 5; (E) Literate males $= 40 \times \frac{19}{100} = 7.61$akh

(F) Literate females $= 25 \times \frac{10}{100} = 2.5$ lakh

$\therefore$ Reqd% $= \frac{7.6}{2.5} \times 100 = 304\%$

38. 4; Total population of E

$= 1.5 \times \frac{20}{100} = 0.30$ crore $= 30$ lakh

Total literate males of E

$= 40 \times \frac{19}{100} = 7.6$ lakh

Total literate females of E

$= 25 \times \frac{20}{100} = 5$ 1akh

$\therefore$ Total literate = 7.6 + 5 = 12.6 lakh

$\therefore$ Reqd% $= \frac{12.6}{30} \times 100 = 42\%$

39. 2; TotaL $= 1.5 \times \frac{21}{100} = 0.315$ crore $= 31.5$ lakh

Literate males $= 40 \times \frac{20}{100} = 8$ lakh

Literate females $= 25 \times \frac{12}{100} = 3$ lakh

$\therefore$ Total literate = 8 + 3 = 11 lakh
$\therefore$ Total illiterate = 31.5 – 11 = 20.5 lakh
$\therefore$ Difference = 20.5 – 11 = 9.5 lakh

40. 1; Literate males = $40 \times \frac{16}{100}$ = 6.4 lakh

Literate females = $25 \times \frac{16}{100}$ = 4 lakh

Reqd % = $\frac{(6.4-4)}{4} \times 100 = 60\%$

41. 3; Production cost

$= 24\left[\frac{10}{100} \times \frac{3}{10} + \frac{17}{100} \times \frac{8}{17}\right]$

= 24[0.03 + 0.08] = 24 × 0.11 = 2.64 crore

42. 2; $B_{I_1} = 24 \times \frac{20}{100} \times \frac{2}{5} = 1.92$ crore

$C_{I_2} = 24 \times \frac{15}{100} \times \frac{7}{15} = 1.68$ crore

∴ Diff = 1.92 – 1.68 = 0.24 crore = 24 lakh

43. 4; $\text{Profit}_{(I_1+I_2)} = 24 \times \frac{25}{100}\left[\frac{14}{25} \times \frac{20}{100} + \frac{11}{25} \times \frac{30}{100}\right]$

Profit = $24 \times \frac{25}{100} \times \frac{1}{250}[28 + 33] = 1.464$ crore

44. 2; $\text{Profit}_B = 24 \times \frac{20}{100} \times \frac{3}{5} \times \frac{25}{100} = 0.72$ crore

$\text{Profit}_D = 24 \times \frac{13}{100} \times \frac{8}{13} \times \frac{30}{100} = 0.576$ crore

∴ $\text{Profit}_{(B+D)}$ = 0.72 + 0.576 = 1.296 crore

45. 1; $\text{Profit}_A = 24 \times \frac{25}{100} \times \frac{14}{25} \times \frac{20}{100}$

$\text{Profit}_E = 24 \times \frac{10}{100} \times \frac{7}{10} \times \frac{25}{100}$

∴ Ratio = $\frac{14 \times 20}{7 \times 25} = \frac{8}{5}$

46. 4; Total items = $\frac{[(24+18)-28]}{100} \times 16$

= 2.24 lakh

47. 2; $\text{Total}_F = 16 \times \frac{8}{100}$ = 1.28 lakh,

$I_1 = \frac{1.28}{5} \times 3 = 0.768$

$I_2 = \frac{1.28}{5} \times 2 = 0.512$

∴ Diff = 0.768 – 0.512 = 0.256 lakh = 25600

48. 3; I_1 sold by A = $16 \times \frac{24}{100} \times \frac{5}{8} \times \frac{65}{100}$ = 1.56 lakh

Similarly,

Total I_1 = 1.56 + 0.896 + 0.6912 + 1.44 + 0.4096 + 0.384 = 5.3808 lakh

∴ Average = $\frac{5.3808}{6}$ = 0.8968 lakh = 89680

49. 1; $I_1 = 16 \times \frac{7}{100} \times \frac{4}{7} \times \frac{64}{100} = 0.4096$,

Similary, I_2 = 0.2640

∴ Diff = 0.4096 - 0.2640 = 0.1456 lakh

= 14560 lakhs

50. 5; I_1 sold by A = 156000,

I_1 sold by F = 38400

∴ Reqd % = $\frac{156000}{38400} \times 100 = 406.25\%$

51. 5; Total number

$= \frac{90000}{100}\left[\frac{14.3 \times 7}{18} + \frac{16.2 \times 5}{9} + \frac{18.4 \times 3}{10} + \frac{16.8 \times 3}{9} + \frac{12.6 \times 2}{5} + \frac{21.7 \times 2}{10}\right]$

= 5005 + 8100 + 4968 + 5040 + 4536 + 3906 = 31555

52. 1; $T_D = 90000 \times \frac{16.8}{100} \times \frac{4}{9} = 6720$,

$T_E = 90000 \times \frac{12.6}{100} \times \frac{2}{5} = 4536$

∴ Diff = 6720 - 4536 = 2184

53. 5; $M_{1\text{-}D} = 90000 \times \frac{16.8}{100} \times \frac{4}{9} = 6720$,

$M_{3\text{-}A} = 90000 \times \frac{14.3}{100} \times \frac{4}{18} = 2860$

∴ Reqd % = $\frac{6720}{2860} \times 100 = 234.96 = 235\%$

54. 5; $\text{Total}_F = \frac{90000}{100} \times 21.7 = 19530$,

$\text{Total}_B = \frac{90000}{100} \times 16.2 = 14580$

∴ Reqd % = $\frac{(19530-14580)}{14580} \times 100$

$= \frac{495000}{14580} = 33.95 = 34$

55. 2; $\text{Total}_C = \frac{90000}{100} \times 18.4 = 16560$

$M_{2\text{-}D} = \frac{90000}{100} \times 16.8 \times \frac{3}{9} = 5040$

$\therefore$ Ratio $= \frac{16560}{5040} = \frac{23}{7}$

56. 2; $\frac{61.2}{360} \times 48600 + \frac{28.8}{360} \times 62500$

$= 8262 + 5000 = 13262$

57. 5; $B_{2008} = \frac{64.8}{360} \times 48600 = 8748,$

$B_{2009} = \frac{54}{360} \times 62500 = 9375$

$\therefore \% = \frac{8748}{9375} \times 100 = 93.31\% \approx 93\%$

58. 3

59. 2; Sum = 8262 + 8748 + 8262 + 11250 + 9375 + 5000 = 50897

60. 5; $E_{2009} = \frac{64.8}{360} \times 62500 = 11250,$

$C_{2009} = \frac{28.8}{360} \times 62500 = 5000$

Percentage $= \frac{11250 - 5000}{5000} \times 100 = \frac{625000}{5000}$

$= 125\%$

61. 1; Difference $= 8.6 \times \frac{22}{100} - 5.4 \times \frac{15}{100}$

$= 1.892 - 0.81 = 1.082$ lakh

62. 4; $H_{2000} = 5.4 \times \frac{10}{100} = 0.54$ lakh,

$H_{2010} = 8.6 \times \frac{8}{100} = 0.688$

Avg $= \frac{0.54 + 0.688}{2} = \frac{1.228}{2}$ lakh $= 61400$

63. 3; Sum $= 5.4 \times \frac{8}{100} + 8.6 \times \frac{18}{100}$

$= 0.432 + 1.548 = 1.98$ lakh

64. 4; Total number of vacancies in 2010

$= \frac{48000 \times 100}{6} = 800000$

$\therefore$ vacancies in NCR = 20% of 800000

$= 160000$

65. 5; $H_{20OO} = 5.4 \times \frac{10}{100} = 0.54$ lakh

$H_{2010} = 8.6 \times \frac{8}{100} = 0.688$ lakh

$\therefore$ % rise $= \frac{(0.688 - 0.54)}{0.54} \times 100 \approx 27.4\%$

66. 2; Total Marks in Unit Test – 2 in (Physics + Chemistry + Math)

$= \frac{800}{100}(18.125 + 18 + 21.75)$

$= 8 \times 57.875 = 463$

67. 3; Chemistry = 800 × $\frac{80}{100}$ = 144

English = 750 × $\frac{18}{100} = 135$

$\therefore$ Difference = 144 – 135 = 9

68. 3; $GK_1 = 750 \times \frac{10}{100} = 75$

$GK_2 = 800 \times \frac{12.375}{100} = 99$

$\therefore$ % Rise $= \frac{99 - 75}{75} \times 100 = \frac{2400}{75} = 32\%$

69. 4; $\text{Math}_1 = 750 \times \frac{20}{100} = 150$

$\text{Math}_2 = 800 \times \frac{21.75}{100} = 174$

$\therefore$ Reqd% $= \frac{174}{150} \times 100 = 116\%$

70. 3; Physics (Test-1 + Test-2)

$= 750 \times \frac{22}{100} + 800 \times \frac{18.125}{100} = 165 + 145 = 310$

Hindi (Testl + Test2)

$= 750 \times \frac{14}{100} + 800 \times \frac{16.25}{100} = 105 + 130 = 235$

$\therefore$ Reqd % $= \frac{310 - 235}{235} \times 100 = \frac{7500}{235}$

$= 31.91\% \approx 32\%$

71. 1; Total = 8000

Graduate : Non-graduate = 3 : 2

$\therefore$ Graduate = 4800 and Non-graduate = 3200

$\therefore$ Graduate F = 4800 × $\frac{24}{100} = 1152$

$\therefore$ Non-graduate F = $8000 \times \frac{21}{100} - 1152$

$\therefore 1680 - 1152 = 528$

72. 5; No relationship between the number of males and the number of graduates is given. Hence, (5).

73. 2; Total = 8000 $\Rightarrow$ Male : Female = 3 : 5

$\therefore$ Males = $\frac{8000}{8} \times 3 = 3000$

And Females = 8000 - 3000 = 5000

$\therefore$ Difference = 5000 - 3000 = 2000

74. 1; $G_C = 4800 \times \frac{13}{100} = 624$

$NG_E = 8000 \times \frac{15}{100} - 4800 \times \frac{20}{100}$

= 1200 - 960 = 240

$\therefore$ Reqd % = $\frac{624}{240} \times 100 = 260\%$

75. 3; $Male_A = 3000 \times \frac{25}{100} = 750$

$Female_F = 8000 \times \frac{21}{100} - 3000 \times 12$

= 1680 - 360 = 1320

$\therefore$ Reqd % = $\frac{(1320 - 750)}{750} \times 100$

$\therefore \frac{57000}{750} = 76\%$

76. 3; $Male_A = \frac{20}{100} \times 1500 = 300$

$Female_D = 2200 \times \frac{12}{100} - 1500 \times \frac{12}{100}$

= 264 - 180 = 84

$\therefore$ Reqd% = $\frac{84}{300} \times 100 = 28\%$

77. 3; $Male_F = 1500 \times \frac{22}{100} = 330$

$Male_P = \frac{22}{100} \times 1500 = 330$

$\therefore Male_B + Male_F = 660$

$\therefore$ Reqd% = $\frac{660}{2200} \times 100 = 30\%$

78. 4; $Male_E = 1500 \times \frac{10}{100} = 150$

$Female_c = 2200 \times \frac{15}{100} - 1500 \times \frac{14}{100}$

= 330 - 210 = 120

$\therefore$ Reqd% = $\frac{150 - 120}{120} \times 100$

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

79. 5; $E_{Female} = 2200 \times \frac{9}{100} - 1500 \times \frac{10}{100}$

= 198 – 150 = 48

$D_{Total} = 2200 \times \frac{12}{100} = 264$

$\therefore$ Ratio = $\frac{264}{48} = \frac{11}{2} = 11 : 2$

80. 2; $C_{Total} = 330$ $C_{Female} = 120$

Now, $C_{1\ Total} = 330 + 20 = 350$

$C_{1\ Female} = 120 + 20 = 140$

$\therefore$ Reqd% = $\frac{140}{350} \times 100 = 40\%$

81. 3; Average of female doctors = $\frac{1800}{7}$

$\approx 257.1 \approx 257$

In City A, female doctors = 432

In City B, female doctors = 288

In City C, female doctors.= 198

In City D, female doctors = 144

In City E, female doctors = 288

In City F, female doctors = 342

In City G, female doctors = 108

There are four cities in which the number of female doctors is more than the average number of female doctors.

These Cities are A, B, E and F.

82. 5; Total doctors in F = $4800 \times \frac{14}{100} = 672$

Female doctors in F = $1800 \times \frac{19}{100} = 342$

$\therefore$ Male doctors = 672 – 342 = 330

83. 3; Total number of doctors in city A

$= 4800 \times \frac{19}{100} = 912$

$Female_A = 1800 \times \frac{24}{100} = 432$

$Male_A = 912 - 432 = 480$

Reqd % = $\frac{432}{480} \times 100 = 90\%$

84. 3; Number of male doctors in City A

$= 4800 \times \frac{19}{100} - 1800 \times \frac{24}{100} = 912 - 432 = 480$

Similarly,

Number of male doctors in City B

$= 21 \times \frac{4800}{100} - 1800 \times \frac{16}{100} = 1008 - 288 = 720$

And the number of male doctors in City C

$= 9 \times \frac{4800}{100} - 1800 \times \frac{11}{100} = 432 - 198 = 234$

Total number of male doctors in cities A, B and C together = 480 + 720 + 234 = 1434
Total number of male doctors in cities E, F and G together = 528 + 330 + 276 = 1134

$\therefore$ Average of (A, B, C) = $\frac{1434}{3}$ = 478

$\therefore$ Average of (E, F, G)

$= \frac{528 + 330 + 276}{3} = 378$

$\therefore$ Difference = 478 – 378 = 100

85. 2; $D_{Total} = 4800 \times \frac{12}{100} = 576$

$D_{Female} = 1800 \times \frac{8}{100} = 144$

$B_{Total} = 4800 \times \frac{21}{100} = 1008$

$Female_B = 1800 \times \frac{16}{100} = 288$

$Male_B$ = 720

$\therefore$ Reqd % = $\frac{144}{720} \times 100 = 20\%$

86. 3; Number of teachers in University B

$= \frac{17 \times 6400}{100} = 1088$

Number of teachers in University D

$= \frac{6 \times 6400}{100} = 384$

Number of teachers in University E

$= \frac{29 \times 6400}{100} = 1856$

$\therefore$ Required percentage = $\frac{1088}{1856 + 384} \times 100$

$= \frac{108800}{2240} = 48.57 \approx 49\%$

87. 4; Number of teachers in University C

$= \frac{19 \times 6400}{100} = 1216$

Number of female teachers in University C $= 1216 \times \frac{25}{100} = 1216 \times \frac{1}{4} = 304$

Number of male teachers in University C = 1216 – 304 = 912

88. 4; Number of teachers in University A

$= \frac{11 \times 6400}{100} = 704$

Number of teachers in University B

$= \frac{17 \times 6400}{100} = 1088$

Number of teachers- in University C

$= \frac{19 \times 6400}{100} = 1216$

Number of teachers in University D

$= \frac{6 \times 6400}{100} = 384$

Number of teachers in University E

$= \frac{29 \times 6400}{100} = 1856$

Number of teachers in University F

$= \frac{18 \times 6400}{100} = 1152$

$\therefore$ Difference = 3392 - 3008 = 384

Quicker Method:

Difference = (D + E + F)% – (A + B + C)%}
= (53 – 47) = 6%
6% of 6400 = 384
Hence, University of D is equal to 6%.

89. 5; Number of teachers in University F

$= \frac{18 \times 6400}{100} = 1152$

Number of professors in University F

$= 1152 \times \frac{1}{36} = 32$

$\therefore$ Total salary of professors in University F = 32 × 96000 = 30.72 lakh

90. 5; Average $= \frac{704 + 1216 + 384 + 1152}{4} = \frac{3456}{4}$ = 864

91. 1; Central angle = (12 + 15 + 14) × $\frac{360}{100}$

= 41 × 3.6 = 147.6°

92. 4; Car $A_{2005} = \frac{10}{100}$ × 32000 = 3200

Car $A_{2010} = \frac{20}{100}$ × 60000 = 7200

$\therefore$ % rise = $\frac{7200 - 3200}{3200} \times 100 = 125\%$

93. 5; Ratio = $\frac{0.14 \times 32000}{0.24 \times 60000} = \frac{14}{45} = 14 : 45$

94. 2; Car D_{2010} = 0.14 × 60000 = 8400
Car C_{2005} = 0.20 × 32000 = 6400

$\therefore$ Reqd% = $\frac{8400}{6400} \times 100 = 131.25$

95. 2; Reqd % = $\frac{6000-5120}{5120} \times 100 = 17.1875 \approx 17\%$

96. 2; Number of employees in Academic affairs

$= \frac{27 \times 12600}{100} = 3402$

Number of employees in Examination department $= \frac{21 \times 12600}{100} = 2646$

$\therefore$ Reqd % = $\frac{3402-2646}{2646} \times 100$

$= \frac{756}{2646} \times 100 = 28.57 \approx 29\%$

97. 3; Number of employees in Research department $= \frac{15 \times 12600}{100} = 1890$

$\therefore$ female employees in Research department $= \frac{1890 \times 30}{100} = 567$

Hence number of male employees in Research department = 1890 - 567 = 1323

98. 4; Number of employees in examination department $= \frac{21 \times 12600}{100} = 2646$

Number of employees in the HR department $= \frac{11 \times 12600}{100} = 1386$

Number of employees in Academic Affairs

$= \frac{27 \times 12600}{100} = 3402$

$\therefore$ Total number of employees in both the departments Academic Affairs and HR together = 3402 + 1386 = 4788

$\therefore$ Reqd % = $\frac{2646}{4748} \times 100 = 55.26 \approx 55$

99. 1; Number of employees in Accounts Department = $\frac{17 \times 12600}{100}$ = 1890

$\therefore$ Average = $\frac{2142+1134+1890}{3} = \frac{5166}{3} = 1722$

100. 1; Difference = (38% of 12600 – 20% of 12600)

= 18% of 12600 = $\frac{18 \times 12600}{100} = 2268$

101. 4; Sales of Ashok Leyland in FY 2010-11 = 40 thousand FY 2011-12 = 40 × 1.125 = 45000

Sales of Eicher = 45000 × $\frac{8}{40}$ = 9000 units

102. 1; Number of buses by Isuzy

= 3375 × $\frac{7}{3}$ = 7875 units

Number of buses sold by Tata

= 3375 × $\frac{41}{3}$ = 46125

SUVs sold by Tata = 46125 × $\frac{12}{20}$ = 27675

$\therefore$ Reqd % = $\frac{7875}{27675} \times 100 = 28.45 \approx 28.5\%$

103. 5; Let total vehicles sold by all companies = 100

Vehicles sold by Eicher = 8

Vehicles sold by Tata = 41

SUVs sold by Tata = $\frac{41 \times 12}{20} = 24.6$

$\therefore$ Ratio = $\frac{8}{24.6} = \frac{40}{123} = 40:123$

104. 3; Let total buses sold = 100

Number of Volvos sold = 3

Number of MUVs sold by Tata $= \frac{41}{20} \times 18 = \frac{369}{10}$

Reqd % = $\frac{3 \times 10}{369} \times 100$ = 8.13% ≈ 8% (approx)

105. 4; Average of Volvo, Isuzy, Eicher and Mahindra = $\frac{3+7+8+1}{4} = \frac{19}{4}\%$

Now, sales of Ashok Leyland in FY 2010-11 = 40 thousand

FY 2011-12 = 40 × 1.125 = 45000

$\frac{19}{4}\% = \frac{45000}{40} \times \frac{19}{4} = 5343.8$

106. 1; Expenditure on electricity and diesel in the year 2000-01 = 7.8% of 15432 = Rs 1203.696 crore

And expenditure on electricity and diesel in the year 2010-11 = 8.6% of 35349 = Rs 3040.014 crore

Exceeding amount = 3040.014 - 1203.696 = 1836.318 crore ≈ 1840 crore

107. 2; Expenses on fertilisers in the year 2000-01 = 17.5% of 15432 = 2700.6 crore = 2701 crore

Now, the expenses on fertilisers in the year 2010-11 = 28.8% of 35349 = 10180.512 crore

$\therefore$ Difference = (10180.512 ≈ 10181)

= 10181 - 2701 = 7480 crore

Number of times = $\frac{7480}{2701} = 2.76 \approx 3$ times

108. 1; Expenses on Fertilisers in 2000-01 = 2700.6 crore

And that on Feed in 2000-01

= 29.5% of 15432 = 4552.44 crore

Total = 2700.6 + 4552.44 = 7253.04 crore ≈ 7253 crore

109. 3; Expenses on Feed in 2000-01 = Rs 4552.44 crore

And the expenses on Feed in 2010-11

= 19.5% of 35349 = Rs 6893 crore

$$\% \text{ increase} = \frac{6893-4552}{4552}\times 100$$

$$= 51.427 \approx 51\%$$

110. 2; Expenses on Electricity and Diesel in 2000-01 = 7.8% of 15432 = 1203.696 crore And in the year 2010-11 expenses = 8.6% of 35349

= 3040.014 crore

∴ Difference of expenses on the same = 3040.014 - 1203.696 = 1836.318 crore

$$\text{Number of times of increase} = \frac{1836.318}{1203.696}$$

$$= 1.525 \approx 1.53 \text{ times}$$

111. 3; Reqd difference in the number of qualified candidate

= 36% of 16500 - 18% of 16500

$$= 18\% \text{ of } 16500 = \frac{18\times 16500}{100} = 2970$$

112. 3; The number of qualified candidates (UP + Bihar) → 24% of 16500 = 3960

No. of candidates appeared (Delhi and Haryana) → 33% of 2 lakh = 66000

$$\text{Reqd}\% = \frac{3960}{66000}\times 100 = 6\%$$

113. 5; The number of candidates appeared from UP → 18% of 2 lakh = 36000

The number of candidates qualified from Mumbai, Delhi, Haryana and Punjab = 54% of 16500 = 8910

$$\therefore \text{Ratio} = \frac{36000}{8910} = \frac{400}{99} = 400:99$$

114. 1; Haryana

115. 2; Gujarat

116. 4; Total number of students from City A

$$= 39000\times\frac{17}{100} = 6630$$

Total number of boys from City A

$$= \frac{12000}{360}\times 82.8 = 2760$$

∴ Girls = 6630 - 2760 = 3870

117. 1; Total number of students from City E

$$= 39000\times\frac{8.5}{100} = 3315$$

Number of boys from City E

$$= 12000\times\frac{75.6}{360} = 2520$$

Number of girls = 3315 - 2520 = 795

∴ Difference = 2520 - 795 = 1725

118. 2; Total number of students from City C

$$= 39000\times\frac{15}{100} = 5850$$

Total number of boys from City C

$$= 12000\times\frac{61.2}{360} = 2040$$

∴ Number of girls from City C

= 5850 – 2040 = 3810

Total number of students from City D

$$= 39000\times\frac{20}{100} = 7800$$

$$\therefore \text{Reqd } \% = \frac{3810\times 100}{7800} = 48.84 \approx 49\%$$

119. 5; Difference = $12000\times\frac{(82.8-72)}{360}$

$$= \frac{12000\times 10.8}{360} = 360$$

120. 3; Total number of students from City F

$$= 39000\times\frac{26}{100} = 10140$$

Number of boys from City F = $12000\times\frac{32.4}{360} = 1080$

Number of girls from City F = 10140 - 1080 = 9060

Total number of giris = 39000 - 12000 = 27000

$$\therefore \text{Reqd } \% = \frac{9060}{27000}\times 100 = 33.55\%$$

121. 2; ∴ Difference = $80\times\frac{86.4}{360} - \frac{90\times 32.4}{360}$

= 19.2 - 8.1 = 11.1 lakh

122. 5; Expenditure of Company C on Salary

$$= 75\times\frac{75.6}{360} = 15.75 \text{ lakh}$$

Expenditure of Company A on transportation

$$= 80\times\frac{54}{360} = 12 \text{ lakh}$$

$\therefore$ Reqd % $= \frac{15.75 \times 100}{12} = 131.25\% \approx 131\%$

123. 2; Average $= \frac{1}{3}\left\{80 \times \frac{64.8}{360} + 90 \times \frac{54}{360} + 75 \times \frac{86.4}{360}\right\}$

$= \frac{1}{3}\{14.4 + 13.5 + 18\} = \frac{45.9}{3} = 15.3$ lakh

124. 4; Expenditure of Company A on infrastructure $= 80 \times \frac{64.8}{360} = 14.4$ lakh

Expenditure of Company B on transportation

$= 90 \times \frac{50.4}{360} = 12.6$ lakh

$\therefore$ Ratio $= \frac{14.4}{12.6} = \frac{8}{7} = 8:7$

125. 4; Expenditure of Company C on infrastructure $= 75 \times \frac{86.4}{360} = 18$ lakh

Expenditure of Company A on bonus

$= 80 \times \frac{36}{360} = 8$ lakh

$\therefore$ Reqd % $= \frac{(18-8)}{8} \times 100 = \frac{1000}{8} = 125\%$

126. 2; Number of readers from State F in the year 2012

$= 57000 \times \frac{100}{10} \times \frac{22}{100}$

= 1.254 lakh.

Number of readers from State F in the year 2008

$= 38700 \times \frac{100}{9} \times \frac{26}{100} = 1.118$ lakh

$\therefore$ Difference = 1.254 - 1.118 = 0.136 lakh

= 13600

127. 2; Let the number of readers from State A be 2x and 5x respectively in the year 2008 and 2012

$\therefore$ Total number of readers from State A in the year 2008

$= 2x \times \frac{100}{10} = 20x$

Total number of readers from State A in the year 2012 = $5x \times \frac{100}{15} = \frac{100x}{3}$

$\therefore$ Ratio = $20x \times \frac{3}{100x} = 3:5$

128. 3; The number of readers from State B in the year 2008

$= 73100 \times \frac{100}{17} \times \frac{14}{100} = 60200$

The number of readers from State B in the year 2012 = $51300 \times \frac{100}{9} \times \frac{16}{100} = 91200$

$\therefore$ Total = 60200 + 91200 = 151400

129. 4; Reqd % = $\frac{15}{24} \times 100 = 62.5\%$

130. 1; The number of readers from State B in the year 2008 = $430000 \times \frac{14}{100} = 60200$

The number of readers from State C in the year 2008 = $430000 \times \frac{17}{100} = 73100$

$\therefore$ Total number of readers from State B and C = 133300

The number of readers from state B in the year 2012 = $570000 \times \frac{16}{100} = 91200$

The number of readers from state C in the year 2012 = $570000 \times \frac{28}{100} = 159600$

The number of readers from State B and C in the year 2012 = 91200 + 159600 = 250800

$\therefore$ Difference = 250800 - 133300 = 117500

131. 1; Total number of students in College A

$= 7500 \times \frac{16}{100} = 1200$

Number of girl students in College A

$= 3000 \times \frac{20}{100} = 600$

$\therefore$ Number of boy students in College A

= 1200 - 600 = 600

$\therefore$ Reqd ratio = 1 : 1

132. 3; Total number of students in College D

$= 7500 \times \frac{17}{100} = 1275$

Number of girl students in College D

$= 3000 \times \frac{22}{100} = 660$

Number of boy students in College D

= 1275 - 660 = 615

133. 5: Total number of students in College F

$= 7500 \times \frac{24}{100} = 1800$

Number of girl students in College F

$= 3000 \times \frac{18}{100} = 540$

Number of boy students in College F

= 1800 - 540 = 1260

$\therefore$ Difference = 1260 - 540 = 720,

which is maximum.

134. 4; Number of boy students in College E

$= 7500 \times \frac{15}{100} - 3000 \times \frac{14}{100} = 1125 - 420 = 705$

Number of girl students in College C

$= 3000 \times \frac{10}{100} = 300$

$\therefore$ Reqd % $= \frac{705}{300} \times 100 = 235\%$

135. 3; Total number of students in College B

$= 7500 \times \frac{18}{100} = 1350$

Number of girl students in College B

$= 3000 \times \frac{16}{100} = 480$

Number of boy students in College B

= 1350 - 480 = 870

$\therefore$ Reqd % $= \frac{(870 - 480)}{480} \times 100 = \frac{39000}{480}$

$= 81.25\% \approx 81\%$

136. 3; Number of employees in Teaching profession $= 26800 \times \frac{15}{100} = 4020$

Number of employees in Medical profession

$= 26800 \times \frac{27}{100} = 7236$

Total number of employees = 4020 + 7336 =11256

Number of employees in Management profession $= 26800 \times \frac{17}{100}$ = ` 4556

$\therefore$ Reqd difference = 11256 – 4556 = 6700

Quicker Method:

Reqd difference = (15 + 27 – 17)% of 26800 = 25% of 26800 = 6700

137. 5; Total number of employees in Management profession $= 26800 \times \frac{17}{100} = 4556$

Number of female employees in Management profession $= 4556 \times \frac{3}{4} = 3417$

$\therefore$ Required number of male employees in Management profession

= 4556 – 3417 = 1139

138. 2; Total number of employees from Film Production $= 26800 \times \frac{19}{100} = 5092$

Now, number of employees from Film Production who went on strike

$= 5092 \times \frac{25}{100} = 1273$

$\therefore$ Number of employees who have not participated in strike = 5092 – 1273 = 3819

Quicker Method:

Required number of employees who have not participated in strike

$= 26800 \times \frac{19}{100} \times \frac{75}{100} = 3819$

139. 4; Required number of employees who participated in both Engineering and Industries professions $= 26800 \times \frac{(9+13)}{100}$

= 268 × 22 = 5896

140. 1; Total number of teachers

$= 26800 \times \frac{15}{100} = 4020$

Number of teachers who are not permanent

$= 4020 \times \frac{3}{5} = 804 \times 3 = 2412$

$\therefore$ Number of teachers who are permanent $= 4020 - 2412 = 1608$

141. 1; The number of girls enrolled in Swimming

$= 1750 \times \frac{14}{100} = 245$

The number of boys enrolled in Swimming

$= \left(\frac{3000 \times 16}{100} - 245\right) = 480 - 245 = 235$

Ratio of girls to boys in Swimming $= 245 : 235 = 49 : 47$

142. 2; The number of girls enrolled in Dancing

$= \frac{1750 \times 20}{100} = 350$

Reqd % $= \frac{350}{3000} \times 100 = 11.66\% \approx 11.67\%$

143. 4; The number of girls enrolled in Swimming

$= \frac{1750 \times 14}{100} = 245$

The number of girls enrolled in Drawing

$= \frac{1750 \times 16}{100} = 280$

$\therefore$ Total number of girls $= 245 + 280 = 525$

144. 5; The number of boys enrolled in Singing

$= \frac{3000 \times 21}{100} - \frac{1750 \times 28}{100}$

$= 630 - 490 = 140$

The number of boys enrolled in Craft

$= \left(\frac{3000 \times 20}{100} - \frac{1750 \times 22}{100}\right)$

$= 600 - 385 = 215$

Total number of boys $= 140 + 215 = 355$

145. 1; Number of boys $= 3000 - 1750 - 1250$

Read % $= \frac{1250}{3000} \times 100 = 41.66 \approx 42\%$

146. 1; Total population = 7000000000

Total number of patients in the world

$= 7000000000 \times \frac{10}{100} = 700000000 = 70$ crore Now, cancer patients in the world

$= 70 \times \frac{30}{100} = 21$ crore

$\therefore$ Cancer Patients in Australia $= 21 \times \frac{5}{100}$

$= 1.05 = 1$ crore 5 lakh

Total number of patients of heart disease in the world $= 70 \times \frac{22}{100} = 15.40$ crore

$= 15$ crore 40 lakh

$\therefore$ Reqd % $= \frac{10500000}{154000000} \times 100 = 6.81\%$

147. 3; Cancer patients in South America

$= 70 \times \frac{30}{100} \times \frac{40}{100} = 8.4$ crore

After decrease of 25%, number of patients in South America $= 84000000 \times \frac{75}{100}$

$= 63000000 = 6.3$ crore

$\therefore$ Decrease $= 84000000 - 63000000$

$= 21000000 = 2.1$ crore

$\therefore$ Percentage decrease in the number of total cancer patients in the world

$= \frac{21000000}{700000000} \times 100 = 3\%$

148. 5; Total number of patients in Africa

$= 70 \times \frac{25}{100} = 17.5$ crore $= 175000000$

Total number of cancer patients in the world

$= 70 \times \frac{30}{100} = 21$ crore

Now, total number of cancer patients in Asia and North America

$= 21 \times \frac{35}{100} = 73500000$

$\therefore$ Ratio $= \frac{175000000}{73500000} = \frac{1750}{735} = \frac{350}{147}$

$= 350 : 147$

149. 4; Total number of patients in Europe

$= 70 \times \frac{10}{100} = 7$ crore

After 2 years, the number of patients in Europe $= 7$ crore $\left(1 + \frac{10}{100}\right)^2$

$= 7 \times \frac{11}{100} \times \frac{11}{10} = 8.47\text{crore}$

= 8 crore 47 lakh

Number of cancer patients in South America = $21 \times \frac{40}{100}$ = 84000000

= 8.4 crore

∴ Difference = 8.47 – 8.40 = 7 lakh

150. 3; Number of patients of hepatitis

$= 70 \times \frac{6}{100}$ = 42000000 = 4.2 crore

After increase, 6% of the number of patients of hepatitis = $42000000\left(1+\frac{6}{100}\right)$

$= 42000000 \times \frac{106}{100}$ = 44520000

= 4.452 crore

Number of patients of heart disease

$= 70 \times \frac{22}{100}$ = 154000000 = 15.4 crore

After 22% increase, the number of patients of heart disease

$= 154000000 \times \frac{122}{100}$ = 187880000

∴ Reqd ratio = 4452 : 18788 = 1113 : 4697

151. 2; Total number of students studying Arts and Commerce in Institute D and E together

= 45% of 5000 + 55% of 6000

$= \frac{45}{100} \times 5000 + \frac{55 \times 6000}{100}$

= 2250 + 3300 = 5550

152. 5; Reqd ratio = $\frac{25\% \text{ of } 5000}{15\% \text{ of } 6000}$

$= \frac{125}{90} = \frac{25}{18} = 25:18$

153. 5; Total number of students studying both Commerce and Arts in Institute B and E together = 25% of 6000 + 35% of 5000

= 1500 + 1750 = 3250

Read % = $\frac{3250}{5000} \times 100 = 65\%$

154. 1; Total number of students studying Arts in Institute A = 10% of 5000 = 500

Total number of students studying Commerce in Institute B

= 5% of 6000 = 300

Reqd % = $\frac{500}{300} \times 100 = 166.66\% \approx 167\%$

155. 3; Number of students studying Arts in Institute C = 30% of 5000

Number of students studying Commerce in Institute A and E together

= 45% of 6000 = 2700

Reqd ratio = $\frac{1500}{2700}$ = 5 : 9

156. 2; Cases registered in WB = $10 \times \frac{16}{100}$

= 1.6 lakh

Cases registered in Goa = $10 \times \frac{14}{100}$

= 1.4 lakh

∴ Total number of cases in (WB + Goa)

= 1.6 + 1.4 = 3 lakh

Now, the number of cases registered in Assam

= $10 \times \frac{12}{100}$ = 1.2 lakh

Number of cases registered in Others

= $10 \times \frac{15}{100}$ = 1.5 lakh

∴ Total number of cases = 1.2 + 1.5

= 2.7 lakh

Exceeded number of cases = 3 – 27

= 0.3 lakh = 30000

157. 1; Total number of cases registered in Goa in 2012 = $10 \times \frac{14}{100}$ = 1.4 lakh

Number of cases of Dowry death registered in Goa = $1.4 \times \frac{20}{100}$

= 0.28 lakh = 28000

Number of cases registered per day in Goa = $\frac{28000}{366}$ $76.502 \approx 77$

(Since 2012 is a leap year, there would be 366 day.)

158. 4; Number of Human trafficking cases in UP = 10 × 18% × 6% = 0.108 = 10800

Number of cases of Human trafficking in WB = 10 × 16% × 6% = 0.096 lakh = 9600

∴ Excess = 10800 – 9600 = 1200

159. 1; Total number of crimes registered in

Bihar in 2012 = $10 \times \frac{19}{100}$ = 1.9 lakh

Now, number of cases registered for Dowry deaths = $1.9 \times \frac{20}{100}$ = 0.38 lakh = 38000

Number of registered cases of Torture

$= \frac{1.9 \times 32}{100}$ = 0.608 lakh = 60800

Number of registered cases of Molestation

$= \frac{1.9 \times 30}{100}$ = 0.57 lakh = 57000

Number of registered cases of Others

$= \frac{1.9 \times 3}{100}$ = 0.057 = 5700

Number of registered cases of Human trafficking = $\frac{1.9 \times 6}{100}$ = 0.114 lakh = 11400

160. 5; In 2012, the number of cases of Torture

= $10 \times \frac{32}{100}$ = 3.2 lakh

In 2012, the number of cases of Others

= $10 \times \frac{30}{100}$ = 0.3 lakh = 30000

∴ Total cases in (Torture + Others)
= 3.2 + 30000 = 3.5 lakh

Again, number of cases of Molestation

= $10 \times \frac{30}{100}$ = 3 lakh

∴ Exceeding number = 3.5 – 3
= 0.5 lakh = 50000

161. 1; Total IR rays received in 1 minute

$= 3600 \times \frac{10}{100} = 360$ units

Time taken to receive 8750 units of IR

$= \frac{8750}{360}$ minutes = 24.3 minutes

162. 3; Amount of UV rays in 5 minutes

= $3600 \times \frac{18}{100} \times 5$ = 3240 units

Amount of IR rays received in 2 minutes

$= 3600 \times \frac{10}{100} \times 2$ = 720 units

Amount of UV rays in 5 minutes of sun rays is $\left(\frac{3240}{720}\right)$ = 4.5 times the amount of IR rays received in 2 minutes.

163. 2; The amount of Gamma rays received when the ozone layer cover completely disappears = 100%

The amount of Gamma rays received in one minute if the ozone layer were to completely disappear = $3600 \times \frac{12}{100}$ units

= 432 units

164. 4; Amount of Microwaves received in 4 minutes = $3600 \times \frac{15}{100} \times 4$ = 2160 units

Amount of Alpha rays received in 3 minutes = $3600 \times \frac{8}{100} \times 3$ = 864 units

∴ Amount of Microwavers received in 4 minutes is (2160 - 864) units = 1296 units more than the amount of Alpha rays received in 3 minutes

165. 4; Given that the body requires 40 units of vitamin D every day.

To generate 1 unit of vitamin D, requirement of Beta rays = 30

To generate 40 units of vitamin D, requirement of Beta rays

= (30 × 40) = 1200 units

Now, in l minute $3600 \times \frac{5}{100}$ = 180 units Beta rays are received.

∵ 180 units Beta rays are received in 1 minute

∴ 1200 units Beta rays are received in

$\frac{1}{180} \times 1200 = \frac{120}{18} = 6\frac{2}{3}$ minutes

166. 4; Number of Civil students not interested in sports = $2500 \times \frac{12}{100} \times \frac{10}{100} = 30$

Now, number of Civil students interested in Sports

$= 2500 \times \frac{12}{100} - 30 = 300 - 30 = 270$

Number of Mechanical students not interested in sports

$= 2500 \times \frac{20}{100} \times \frac{20}{100} = 100$

$\therefore$ Number of Mechanical students interested in sports

$= 2500 \times \frac{20}{100} - 100 = 400$

Again, number of Electrical students interested in sports

$= 2500 \times \frac{22}{100} - 2500 \times \frac{22}{100} \times \frac{12}{100} = 484$

$\therefore$ Average number of students of these branches who are interested in sports

$= \frac{270 + 400 + 484}{3} = \frac{1154}{3} = 384.66 \approx 385$

167. 2; $\therefore$ Reqd ratio $= 2500 \times \frac{5}{100} : 2500 \times \frac{20}{100}$

$= 125 : 500 = 1 : 4$

168. 5; Number of failed students of Electronics branch $= 2500 \times \frac{15}{100} \times \frac{20}{100} = 75$

Now, failed Electronic students who are not interested in sports $= 75 \times \frac{60}{100} = 45$

Total number of students of all branches who are not interested in sports

$= 2500 \times \frac{15}{100} = 375$

$\therefore$ Reqd % $= \frac{45 \times 100}{375} = 12\%$

169. 1; Number of Mechanical students interested in Football $= 2500 \times \frac{20}{100} \times \frac{50}{100} = 250$

Number of Electrical students interested in Football $= 2500 \times \frac{22}{100} \times \frac{40}{100} = 220$

$\therefore$ Reqd ratio = 25 : 22

170. 3; Students of Mechanical branch interested in other games $= 2500 \times \frac{20}{100} \times \frac{20}{100} = 100$

Student of Electrical branch interested in other games $= 2500 \times \frac{22}{100} \times \frac{20}{100} = 110$

$\therefore$ Difference = (110 – 100) = 10

171. 3: Reqd % $= \frac{1750 \times 20}{3000} \times 100\%$

$= \frac{350}{3000} \times 100 = \frac{35}{3} = 11.67\%$

172. 1; Number of boys enrolled in Singing and Craft together

$= 3000 \times \frac{46}{100} - 1750 \times \frac{50}{100}$

= 1380 – 875 = 505

173. 4; Reqd ratio

$= \frac{14\% \text{ of } 1750}{16\% \text{ of } 3000 - 14\% \text{ of } 1750}$

$= \frac{245}{480 - 245} = \frac{245}{235} = \frac{49}{47} = 49 : 47$

174. 2: Total number of girls in Swimming and Drawing together $= 1750 \times \frac{30}{100} = 525$

175. 5; Reqd % of boys

$= \frac{(3000 - 1750)}{3000} \times 100\% = \frac{1250}{3000} \times 100\%$

$= 41.67 \approx 42\%$

176. 1; Number of employees interested in Athletics $= \frac{65000 \times 20}{100} = 13000$

Number of employees interested in Baseball

$= \frac{65000 \times 14.5}{100} = 9425$

$\therefore$ Reqd % $= \frac{13000}{9425} \times 100 = 137.93 \approx 138\%$

177. 2; Reqd difference

$= \frac{65000}{100}\{30 - (14.5 + 12 + 2.5)\}$

$= \frac{65000}{100} \times (30 - 29) = 650$

178. 5; Reqd ratio $= \frac{2.5}{14.5} = \frac{25}{145} = 5 : 29$

179. 3; Number of employees interested in Hockey

$= \frac{65000 \times 12}{100} = 7800$

Number of employees interested in Football, Athletics and Baseball

together $= \frac{65000}{100}(21 + 20 + 14.5)$

$= 650 \times 55.5 = 36075$

$\therefore$ Reqd % $= \frac{7800}{36075} \times 100 = 21.62 \approx 22\%$

180. 1; Number of employees interested in Gymnastics $= \frac{65000 \times 2.5}{100} = 1625$

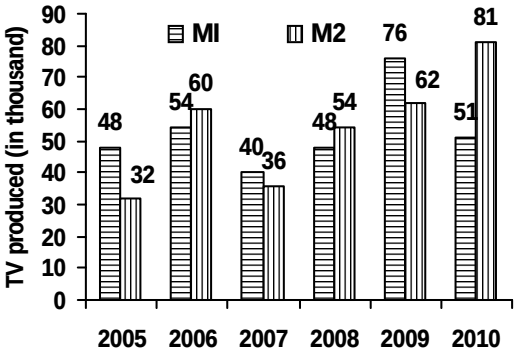
Number of employees interested in Hockey

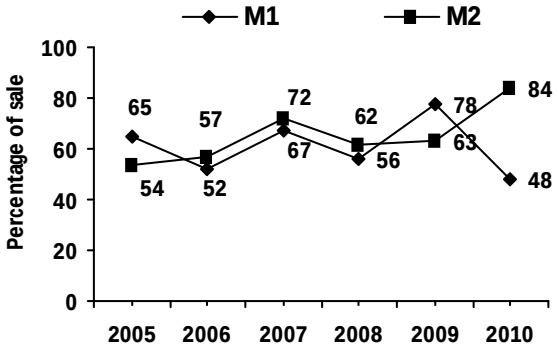
$= \frac{65000 \times 12}{100} = 7800$

$\therefore$ Reqd % $= \frac{1625}{7800} \times 100 = 20.83\% \approx 21\%$

DI- MULTIPLE DIAGRAM TEST

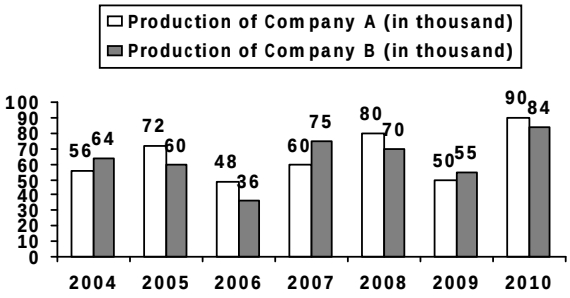
Directions (Q. 1-5): Following bar-graph shows the number of TV models, M_1 and M_2 produced by a company in different years and the line-graph shows the percentage of sale of these models in different years.

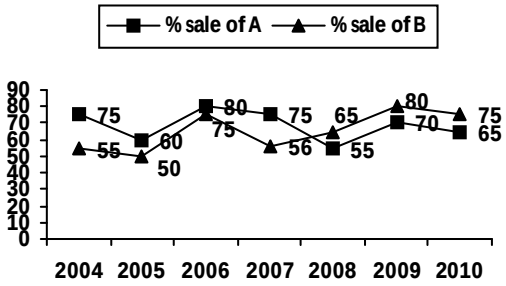




1. What is the total number of TV models M_1 and M_2 sold in the year 2005?
   (1) 44800 (2) 48840 (3) 48480 (4) 48440 (5) 44880
2. What is the ratio of the total number of TVs of model M_2 unsold in the year 2006 to the total number of TVs of model M_2 produced in 2007?
   (1) 32 : 47 (2) 41 : 60 (3) 43 : 60 (4) 47 : 60 (5) 8 : 15
3. In which of the following years the percentage rise / fall in the production of model M_1 is minimum as compared to the previous year?
   (1) 2006 (2) 2007 (3) 2008 (4) 2009 (5) 2010
4. What is the approximate percentage rise in the selling of model M_2 from year 2007 to 2008?
   (1) 27% (2) 29% (3) 31% (4) 33% (5) 35%
5. What is the total number of TVs of model M_1 sold in all the six years together?
   (1) 195240 (2) 196720 (3) 197340 (4) 198280 (5) 199020

Directions (Q. 6-10): Following bar-graph shows the production of two companies A and B (in thousand) during the period 2004 to 2010 and the line graph shows the percentage sale of these companies.





6. In which of the following years the percentage rise/fall in production is the minimum for Company A compared to the previous year?
(1) 2005 (2) 2006 (3) 2007 (4) 2008 (5) 2009

7. What is the total sale of Company B in the year 2004 and 2008 together?
(1) 86400 (2) 81400 (3) 83700 (4) 85300 (5) 80700

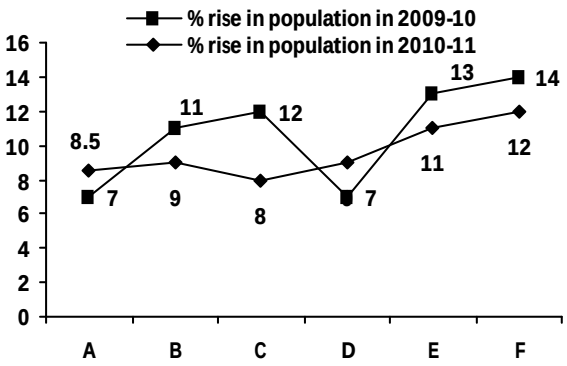
8. What is the percentage rise in the sale of Company B from 2009 to 2010? (Answer in approximate value.)
(1) 39.6% (2) 41.4% (3) 43.2% (4) 45.8% (5) 47.5%

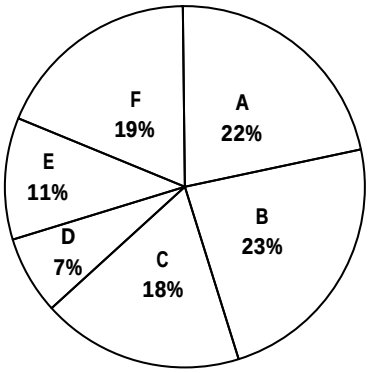
9. What is the difference between the total items sold by Company A in the year 2006 and 2007 together and the total items sold by Company B in the year 2004 and 2005 together?
(1) 18100 (2) 18200 (3) 18300 (4) 18400 (5) 18500

10. Total unsold items of Company A in the year 2008 is approximate what percentage more than the total unsold items of Company B in 2008?
(1) 39% (2) 42% (3) 45% (4) 47% (5) 49%

Directions (Q. 11-15): Following pie-chart shows the percentage distribution of the total population of six cities in the year 2009 and the line-graph shows the percentage rise in population of these cities during the period of 2009 -2010 and 2010 - 2011.

(The total population of all six cities together in the year 2009 is 2.8 crore.)





11. What is the population of City F in the year 2011?
(1) 6792576 (2) 6784312 (3) 6776216 (4) 6756418 (5) None of these

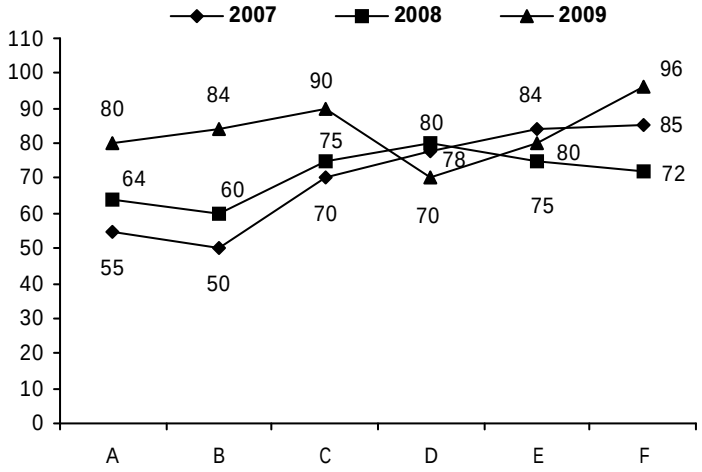
12. What is the difference between the population of City B in the year 2011 and its population in the year 2010?
(1) 621748 (2) 630496 (3) 643356 (4) 651246 (5) None of these

13. What is the approximate per cent rise in the population of City C from the year 2009 to 2011 ?
(1) 10% (2) 20% (3) 20.72% (4) 20.96% (5) 21.12%

14. What is the sum of population of City A in year 2011 and population of City E in year 2010?
(1) 10274812 (2) 10631852 (3) 10947828 (4) 11014696 (5) None of these

15. What is the average of the total population of City F and City C in the year 2010? (in crore)
(1) 0.56144 (2) 0.57296 (3) 0.58548 (4) 0.59324 (5) None of these

Directions (Q. 16-20): Following line graph shows the number of students passed (in hundred) from six different states in year 2007,2008 and 2009. The table given below shows the percentage of girls among these passed students.



	2007	2008	2009
A	47%	38%	42%
B	36%	45%	37%
C	52%	48%	40%
D	57%	51%	43%
E	44%	49%	52%
F	45%	55%	56%

16. What is the average number of girls passed from all six states together in year 2007?
(1) 3312 (2) 3322 (3) 3332 (4) 3342 (5) 3352

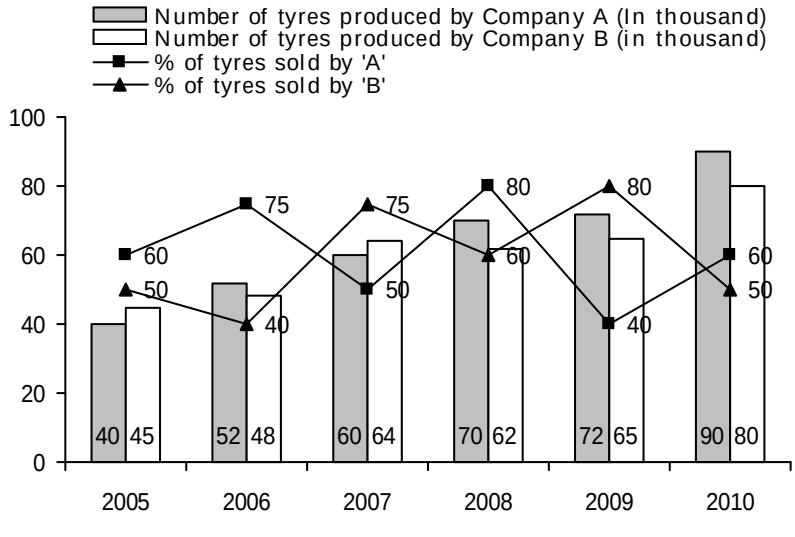
17. The number of girls passed from State F in year 2008 is what percentage of the total number of girls passed from State B in year 2007?
(1) 220% (2) 180% (3) 145% (4) 80% (5) 45%

18. Total number of boys passed from all six states together in year 2009 is what percentage of total students (girls & boys) passed in the exam from all states in that year?
(1) 48.24% (2) 54.772% (3) 57.125% (4) 60.5% (5) 63.385%

19. What is the difference between total number of boys passed and the total number of girls passed from State D in all three years together?
(1) 266 (2) 268 (3) 270 (4) 272 (5) 274

20. From which of the following states the percentage rise in the number of boys passed from year 2008 to year 2009 is the highest?
(1) A (2) B (3) C (4) F (5) None of these

Directions (Q. 21-25): Following graph shows the number of tyres produced and the percentage of produced tyres sold by two companies 'A' and 'B' from 2005 to 2010.



21. What is the total number of tyres produced by Company A which remained unsold in all six years together?

(1) 137400 (2) 144340 (3) 152200 (4) 168000 (5) None of these

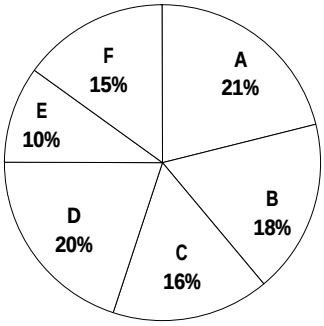
22. What is the ratio of the number of tyres sold by Company B in 2009 to the number of tyres that remained unsold by Company A in the year 2006?
(1) 5 : 2 (2) 4 : 1 (3) 5 : 3 (4) 4 : 3 (5) 5 : 4

23. What is the difference between the total number of tyres sold and the total number of unsold tyres of Company B in all six years?
(1) 68700 (2) 70500 (3) 71900 (4) 72100 (5) 73800

24. The number of tyres sold by 'A' in 2006 is what percentage of the number of tyres sold by 'B' in the year 2010?
(1) 82.5% (2) 87.5% (3) 90% (4) 97.5% (5) 120%

25. The number of tyres sold by Company A in year 2008 is what percentage more than the number of tyres unsold by Company B in year 2007?
(1) 250% (2) 200% (3) 120% (4) 80% (5) 30%

Directions (Q. 26-30): In the following pie-chart the percentage distribution of population of six cities is given. Total population of these six cities is 24 lakh. The given table shows the ratio of males to females and the percentage of adult population in these cities.



City	Male : Female	% Adult
A	4 : 3	60%
B	5 : 4	64%
C	5 : 3	72%
D	2 : 3	70%
E	1 : 1	75%
F	3 : 2	65%

26. What is the total number of male population in City D?
(1) 1.88 lakh (2) 1.92 lakh (3) 1.96 lakh (4) 2.04 lakh (5) 2.12 lakh

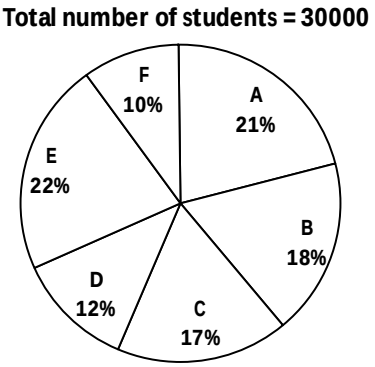
27. What is the number of persons in City C who are not adult?
(1) 107520 (2) 108410 (3) 109560 (4) 110800 (5) 121400

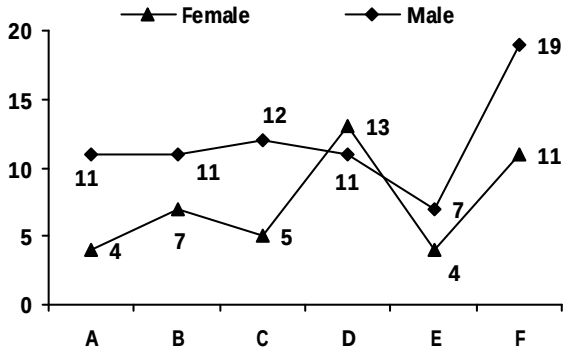
28. What is the number of females in city A who are adult?
(1) 74400 (2) 74500 (3) 75400
(4) 75500 (5) Can'tbe determined

29. What is the difference between the number of males and the number of females in City B?
(1) 42000 (2) 44000 (3) 45000 (4) 48000 (5) None of these

30. The number of adults in City E is what per cent of the number of males in City D?
(1) 82.5% (2) 87.75% (3) 92.5% (4) 93.75% (5) 95%

Directions (Q. 31-35): The following pie-chart shows the percentage distribution of total number of students who completed their graduation from different universities, and the line graph shows the ratio of males to females.





31. What is the total number of male graduates from University A and B together?
(1) 7920 (2) 7940 (3) 7960 (4) 7980 (5) 8000

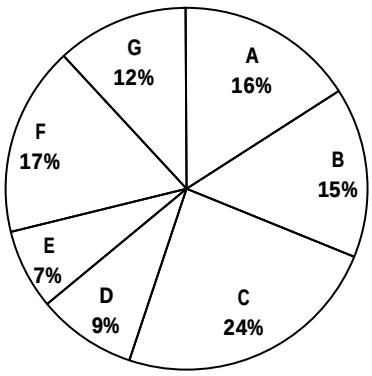
32. What is the ratio of the total number of male graduates from University D to the total number of female graduates from University C?
(1) 7 : 6 (2) 8 : 7 (3) 9 : 8 (4) 10 : 9 (5) 11 : 10

33. The number of male graduates from University B is what percentage more than the number of female graduates from University E?
(1) 32.5% (2) 35% (3) 37.5% (4) 40% (5) 42.5%

34. The total number of female graduates from all six universities together is approximately what percentage of the total number of male and female graduates from all six universities?
(1) 30% (2) 36% (3) 40% (4) 45% (5) 48%

35. The number, of female graduates from University A is what fraction of the total number of male and female graduates from University D?
(1) $\frac{5}{12}$ (2) $\frac{7}{12}$ (3) $\frac{7}{15}$ (4) $\frac{8}{15}$ (5) None of these

Directions (Q. 36-40): Following pie-chart shows the percentage distribution of total population of seven cities. The total population of all these cities is 96 lakh. The table gives the detail of percentage of male population and percentage of illiterate population among them.



CITY	% Male Population	% Illiterate Population
A	52%	64%
B	57%	56%
C	51%	48%
D	48%	55%
E	47%	58%
F	53%	62%
G	50%	52%

Total = 9600000

36. What is the average number of male population in a city, taking all seven cities together?
(1) 709410 (2) 709420 (3) 709430 (4) 709440 (5) 709450

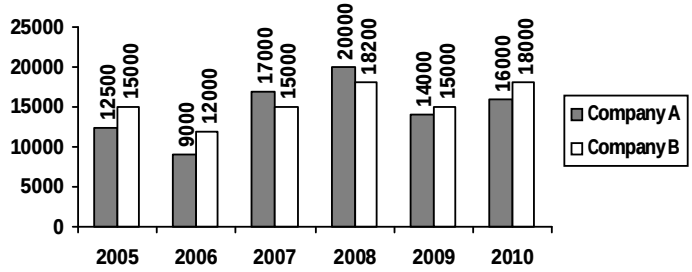
37. What is the difference between total illiterate population and total literate population in City A?
(1) 410080 (2) 420080 (3) 430080 (4) 440080 (5) 450080

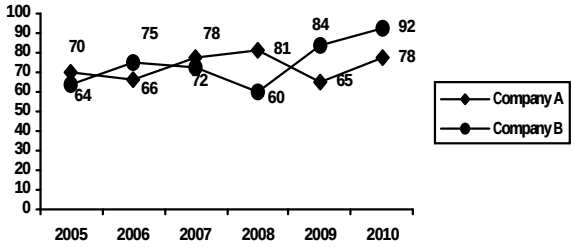
38. What is the total number of females who are literate in City E?
(1) 356160 (2) 315840 (3) 389760
(4) 282240 (5) Can'tbe determined

39. In the given cities, which city has the difference between the male population and the female population the maximum?
(1) A (2) B (3) C (4) E (5) F°

40. The literate population of City C is what percentage of the illiterate population of City G?
(1) 50% (2) 100% (3) 150% (4) 200% (5) 250%

Directions (Q. 41-45) : Following bar graph shows the number of cycles produced by two companies A and B during 2005 to 2010, and the line graph shows the percentage of cycles sold by these companies.





41. What is the percentage rise in production of Company A from year 2006 to year 2007?
(1) 72% (2) 81% (3) 89% (4) 96% (5) None of these

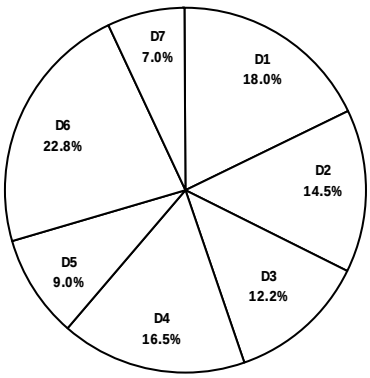
42. The number of cycles sold in year 2008 by Company A is what percentage of the total number of cycles sold by Company B in year 2006?
(1) 55% (2) 80% (3) 160% (4) 180% (5) 240%

43. What is the total number of unsold cycles of Company B in all six years together?
(1) 23710 (2) 23720 (3) 23730 (4) 23740 (5) 23750

44. In which of the following years is the percentage rise in production compared to its previous year the highest for Company B?
(1) 2006 (2) 2007 (3) 2008 (4) 2009 (5) 2010

45. In which of the following years is the difference between the number of cycles sold by Company A and that by Company B the maximum?
(1) 2006 (2) 2007 (3) 2008 (4) 2009 (5) 2010

Directions (Q. 46-50) : Following pie chart shows the percentage distribution of employees in different departments of an organisation. The table shows the ratio of male to female employees among them. The total number of employees is 9000.



	Ratio
	Male : Female
D_1	7 : 13
D_2	7 : 8
D_3	4 : 5
D_4	22 : 23
D_5	13 : 17
D_6	17 : 19
D_7	8 : 13

Total = 9000

46. What is the total number of male employees working in the organisation?
(1) 3930 (2) 3940 (3) 3950 (4) 3960 (5) 3970

47. The female employees of Department D_3 is approximately what percentage of the total employees working in Department D_3?
(1) 37.5% (2) 47.5% (3) 52.5% (4) 55.5% (5) 57.5%

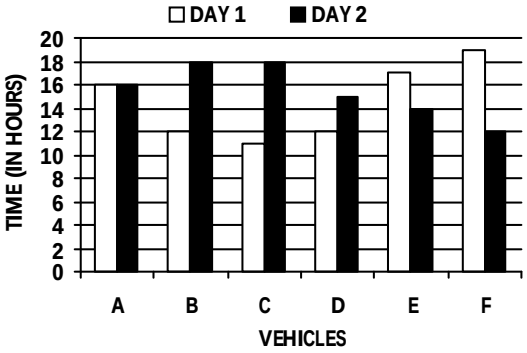
48. The female employees working in Department D_7 is what percentage more than the male employees working iN Department D_7?
(1) 32.5% (2) 45% (3) 52.5% (4) 57.5% (5) 62.5%

49. In which of the following departments is the difference between male and female employees the minimum?
(1) D_1 (2) D_2 (3) D_4 (4) D_5 (5) D_6

50. The total number of female employees working in an organisation is approximately what percentage of the total number of employees working in the organisation?
(1) 52.32% (2) 54.16% (3) 56.11% (4) 57.5% (5) 58.19%

Directions (Q.51-55). Study the following graph and table carefully and answer the questions given below:

TIME TAKEN TO TRAVEL (IN HOURS) BY SIX VEHICLES ON TWO DIFFERENT DAYS



DISTANCE COVERED (IN KILOMETERS) BY SIX VEHICLES ON EACH DAY

Vehicle	Day 1	Day 2
A	832	864
B	516	774
C	693	810
D	552	765
E	935	546
F	703	636

51. Which of the following vehicles travelled at the same speed on both the days ?
(1) Vehicle A (2) Vehicle C (3) Vehicle F (4) Vehicle B (5) None of these

52. What was the difference between the speed of vehicle A on day 1 and the speed of vehicle C on the same day ?
(1) 7km/hr. (2) 12km/hr. (3) 11 km/hr. (4) 8 km/hr. (5) None of these

53 What was the speed of vehicle C on day 2 in terms of meters per second ?
(1) 15.3 (2) 12.8 (3) 11.5 (4) 13.8 (5) None of these

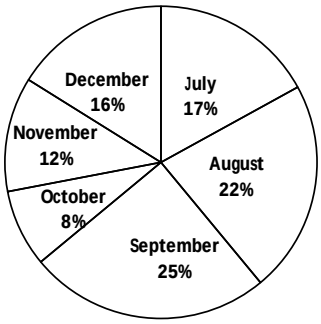
54. The distance travelled by vehicle F on day 2 was approximately what percent of the distance travelled by it on day 1 ?
(1) 80 (2) 65 (3) 85 (4) 95 (5) 90

55 What is the respective ratio of the speeds of vehicle D and vehicle E on day 2 ?
(1) 15 : 13 (2) 17 : 13 (3) 13 : 11 (4) 17 : 14 (5) None of these

Directions (Q. 56-60) Study the following pie-chart and table carefully and answer the questions given below ;

PERCENTAGEWISE DISTRIBUTION OF THE NUMBER OF MOBILE PHONES SOLD BY A SHOPKEEPER DURING SIX MONTHS

Total number of mobile phones sold = 45,000



The respective ratio between the number of mobile phones sold of company A and company B during six months

Month	Ratio
July	8 : 7
August	4 : 5
September	3 : 2
October	7 : 5
November	7 : 8
December	7 : 9

56. What is the respective ratio of the number of mobile phones sold of company B during July to those sold during December of the same company ?
(1) 119 : 145 (2) 116 : 135 (3) 119 : 135 (4) 119 : 130 (5) None of these

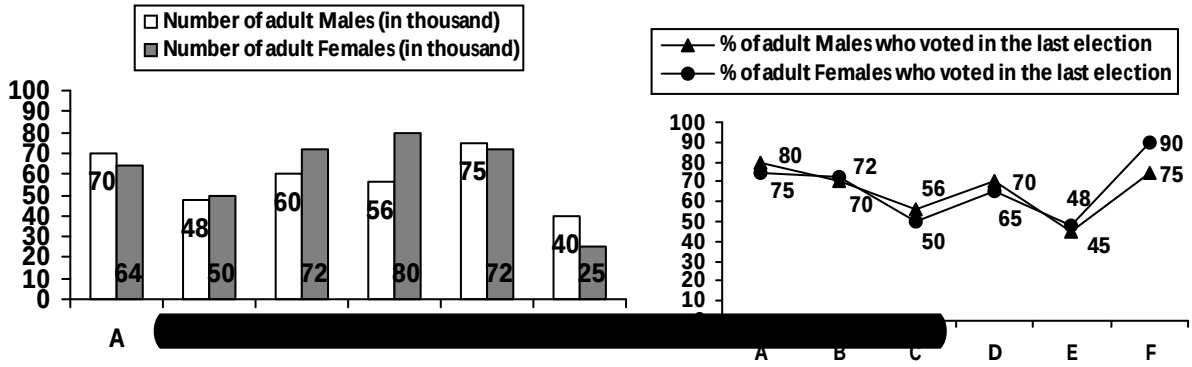
57. If 35% of the mobile phones sold by company A during November were sold at a discount, how many mobile phones of company A during that month were sold without a discount ?
(1) 882 (2) 1635 (3) 1638 (4) 885 (5) None of these

58. If the shopkeeper earned a profit of ` 433/- on each mobile phone sold of company B during October, what was his total profit earned on the mobile phones of that company during the same month ?
(1) ` 649900/- (2) ` 6,45,900/- (3) ` 6,49,400/- (4) ` 6,49,500/- (5) None of these

59. The number of mobile phones sold of company A during July is approximately what percent of the number of mobile phones sold of company A during December ?
(1) 110 (2) 140 (3) 150 (4) 105 (5) 130

60. What is the total number of mobile phones sold of company B during August and September together?
(1) 10,000 (2) 15,000 (3) 10,500 (4) 9,500 (5) None of these

Directions (Q. 61-65) : The following bar-graph shows the number of adult Males and Females of six cities and the line graph shows percentage of adult Males and Females who voted in the last election:



61. What is the total number of Females from all the six cities together who voted in the last election?
(1) 229060 (2) 229160 (3) 229260 (4) 229360 (5) 229460

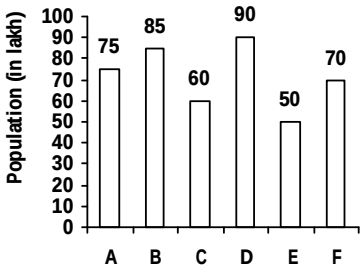
62. In which pair of cities are the numbers of Males who voted in the last election equal?
(l) A and B (2) B and C (3) C and D (4) A and C (5) B and D

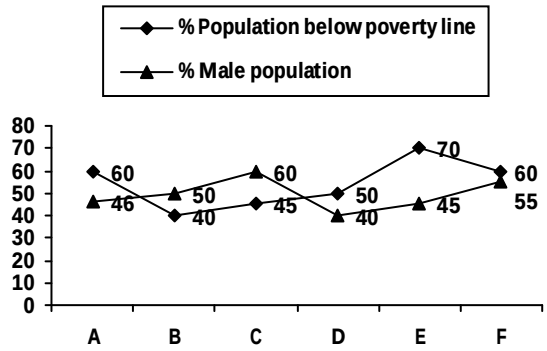
63. What is the difference between the total number of Males and the total number of Males who voted in the last election?
(1) 121750 (2) 122850 (3) 123740 (4) 124550 (5) None of these

64. The total number of Females from City A and City C together who voted in the last election is what percentage of the total number of Males from City A who voted in the last election?
(1) 75% (2) 80% (3) 90% (4) 120% (5) 150%

65. The total number of Females from City F who voted in the last election is what percentage less than the total number of Males from the same city who voted in the last election?
(1) 72% (2) 60% (3) 45% (4) 30% (5) 25%

Directions (Q. 66-70) : Following bar graph shows the total number of people of different cities and the line graphs show the percentage population and the percentage male population below poverty line respectively





66. What is the average male population of all the six cities together?
(1) 32 lakh (2) 35 lakh (3) 36 lakh (4) 36.5 lakh (5) 37.5 lakh

67. What is the difference between the population below poverty line and the population above poverty line of all the six cities?
(1) 22 lakh (2) 23 lakh (3) 24 lakh (4) 25 lakh (5) 26 lakh

68. The total female population of City C and City D together is what percentage of the total population of City E and City F together?
(1) 35% (2) 45% (3) 55% (4) 65% (5) 75%

69. If the population below poverty line of City F decreases by 50% and the population above poverty line of City F increases by 100%, what will be the ratio of populations below poverty line to the population above poverty line for City F?
(1) 9 : 8 (2) 3 : 8 (3) 8 : 3 (4) 3 : 2 (5) 2 : 1

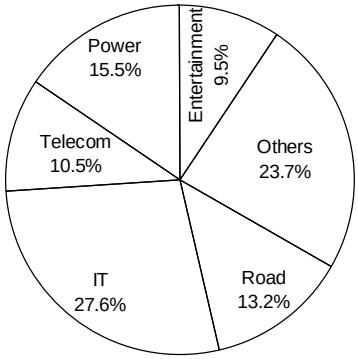
70. The female population of City A is what percentage more than the male population of City E?
(1) 20% (2) 60% (3) 225% (4) 80% (5) 125%

Directions (Q. 71-75) : Study the following table and pie-chart and answer the questions given below them.

The following table shows the FDI in Indian states during the year 2010-11.

State	Bihar	MP	UP	Sikkim	Assam	Delhi	AP
FDI (in Rs Cr)	780	890	985	345	365	415	972

The following pie-chart shows the investments in different sectors by each state.



71. The FDI in Bihar in Power sector is approximately what per cent of the FDI in AP in Road sector?
(1) 93% (2) 94% (3) 95% (4) 81% (5) 87%

72. The FDI in Entertainment sector in Assam is approximate what per cent less than that in Delhi in Telecom sector?
(1) 37.73% (2) 20.13% (3) 27.63% (4) 19.83% (5) 20.43%

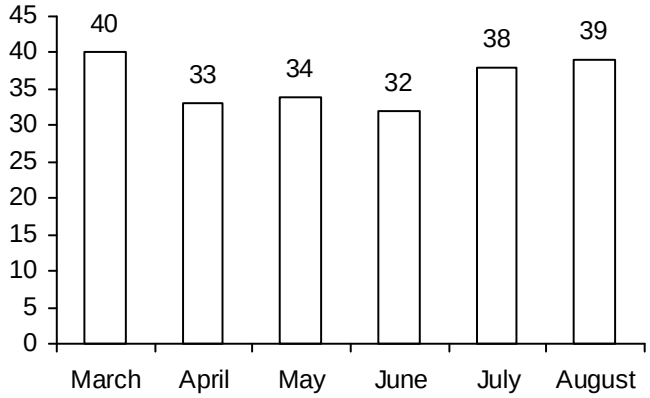
73. What is the total investment in Others by all these states?
(1) Rs 1151.35 crore (2) Rs 7071crore (3) Rs 1126.224 crore
(4) Rs 373.95crore (5) Rs 841.375 crore

74. What is the ratio of the investment in IT sector in UP to the total investment in Road sector in MP?
(1) 4485 : 1958 (2) 3752 : 4182 (3) 1958 : 4485 (4) 4182 : 3752 (5) None of these

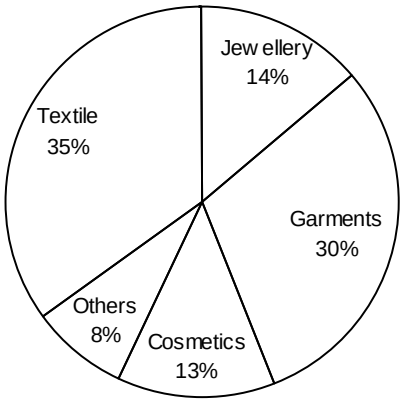
75. In which of the following pairs of states is the ratio of investment in IT sector 197 : 69?
(1) Bihar, UP (2) MP, Assam (3) Sikkim, Delhi (4) AP, Bihar (5) UP, Sikkim

Directions (Q. 76-80) : Study the following bar graph and pie-chart and answer the questions that follow:

India's export (in billion dollars)



Sector wise export in each month



76. What is the average export (in billion dollars) of Textile industry over the period March to August?
(1) 14.6. (2) 17.8 (3) 18.9 (4) 12.6 (5) None of these

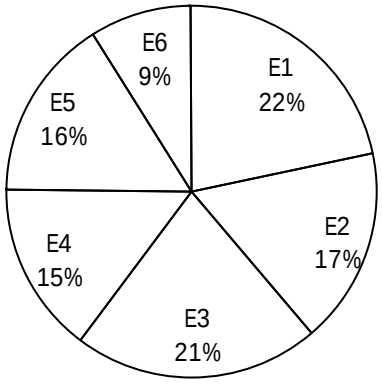
77. If the export in September increases by 15% in comparison to previous year, then what is the approximate amount of increase in Garments industry?
(1) $37 billion (2) $49 billion (3) $48 billion
(4) Data inadequate (5) None of these

78. The export of Jewellery in July is what per cent more than Cosmetics in April?
(1) 21% (2) 24% (3) 23% (4) 22% (5) None of these

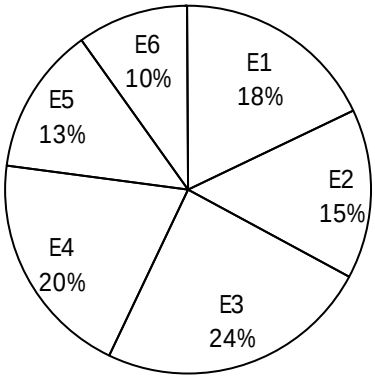
79. The export of Others in March is approximately how many times the export of others in April?
(1) 2.212 times (2) 1.212 times (3) 1.732 times (4) 17 times (5) 2 times

80. The export of Garments and Textile together in the month of August is approximately what per cent of the export of the other three categories in the pie-chart in the same month?
(1) 84% (2) 180% (3) 186% (4) 86% (5) 190%

Directions (Q. 81-85) : In the following pie-charts the percentage of different categories of employees of two companies A and B are given and the table shows the percentage of Male employees among them. The total employees in Company A is 6500 and that in Company B is 9000.



Company A



Company B

Employee	% Male in A	% Male in B
E_1	40%	45%
E_2	60%	48%
E_3	40%	55%
E_4	48%	52%
E_5	55%	60%
E_6	60%	57%

81. What is the total number of female employees of category E_4 in Company A?
(1) 975 (2) 468 (3) 507 (4) 864 (5) None of these

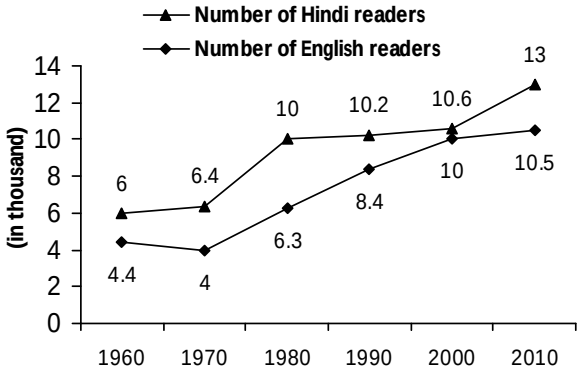
82. What is the average number of male employees of all categories in Company B?
(1) 722 (2) 756 (3) 764 (4) 775 (5) 786

83. What is the difference between the total number of male and female employees in Company A?
(1) 156 (2) 160 (3) 162 (4) 168 (5) 172

84. The total number of female employees in categories E_1, E_2 and E_3 together in Company B is what percentage of the total employees in Company B?
(1) 24% (2) 26.5% (3) 27.5% (4) 28.5% (5) 32.5%

85. The total male employees of category E_5 and E_6 in Company B is approximately what percentage more than the total male employees of category E_4 and E_5 in Company A?
(1) 11% (2) 13% (3) 15% (4) 17% (5) 19%

Directions (Q. 86-90) : The following line graph shows the number of newspaper readers in Hindi and English language in six decades. The table gives the information about the ratio of Male to Female readers among them.



Year	Hindi	English
	M : F	M : F
1960	2 : 1	8 : 3
1970	5 : 3	3 : 1
1980	3 : 2	7 : 2
1990	2 : 1	9 : 5
2000	1 : 1	3 : 2
2010	7 : 6	2 : 1

86. What is the total number of Females who read Hindi newspaper in the year 1990?
(1) 2700 (2) 3200 (3) 3400 (4) 3600 (5) 4000

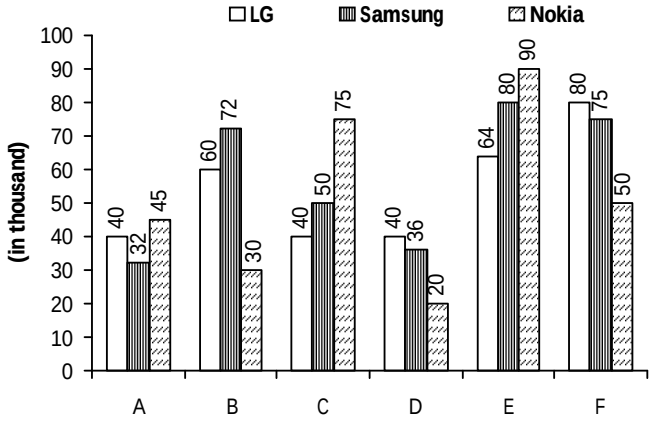
87. What is the ratio of the number of Males who read Hindi newspaper in the year 1990 to the number of Females who read English newspaper in the year 1960?
(1) 12 : 5 (2) 15 : 4 (3) 16 : 4 (4) 17 : 3 (5) 19 : 9

88. What is the average number of Females who read Hindi newspaper taking all the years together?
(1) 3740 (2) 3850 (3) 3960 (4) 4080 (5) 4120

89. The number of Females who read English newspaper in the year 1980 is what percentage of the number of Females who read Hindi newspaper in the same year?
(1) 35% (2) 42% (3) 45% (4) 50% (5) 54%

90. The number of Females who read English newspaper in 2010 is what percentage more than the number of Males who read English newspaper in the year 1960?
(1) 7.5% (2) 10% (3) 12.5% (4) 15% (5) None of these

Directions (Q. 91-95) : The given bar graph shows the number of mobile users of three brands (LG, Samsung and Nokia) in different cities. The table shows the percentage of Females among these mobile users.



City	% Female (LG)	% Female (Samsung)	% Female (Nokia)
A	30	45	51
B	36	42	48
C	54	50	45
D	39	49	50
E	46	58	55
F	49	58	42

91. What is the number of Female mobile users of LG brand in City C?
(1) 18750 (2) 19700 (3) 20400 (4) 21600 (5) 22500

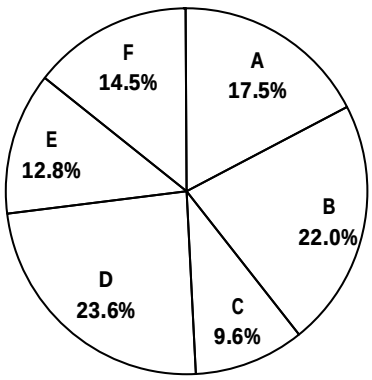
92. What is the total number of Male users of Nokia brand in all the cities?
(1) 156100 (2) 157200 (3) 158400 (4) 159700 (5) None of these

93. What is the difference between the average number of Samsung mobile users and the average number of LG mobile users in all the six cities together?
(1) 3500 (2) 2800 (3) 3750 (4) 4200 (5) None of these

94. The number of Female Samsung users in City A and B together is approximately what percentage of the total number of Male LG users in City C and D together'?
(1) 71.165% (2) 77.4% (3) 83.721% (4) 84.64% (5) 104.29%

95. The number of Male Nokia users in City E is approximately what percentage more than the number of Female Nokia users in City F?
(1) 84% (2) 93% (3) 98% (4) 74% (5) 62%

Directions (Q. 96–100) : The following pie-chart shows the percentage distribution of total population of six different cities and the table shows the proportion of educated to uneducated population among them. (Population of all the six cities together is 72 lakh.)



City	Educated : Uneducated
A	19 : 11
B	23 : 22
C	11 : 7
D	31 : 19
E	41 : 19
F	67 : 23

96. What is the total number of Educated persons in City D?

(1) 987540 (2) 1053504 (3) 1132750 (4) 1275812 (5) None of these

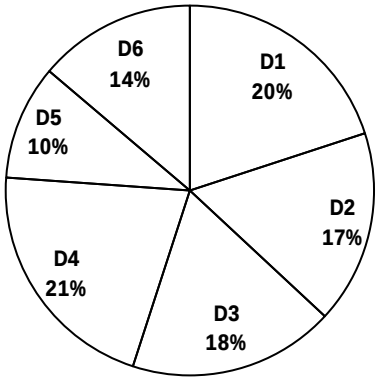
97. What is the difference between the total number of Educated persons and the total number of Uneducated persons in City F?
(1) 510400 (2) 512800 (3) 511900 (4) 513500 (5) 514650

98. What is the average number of Educated persons in City C, D and E together?
(1) 685432 (2) 687596 (3) 692148 (4) 694368 (5) 701888

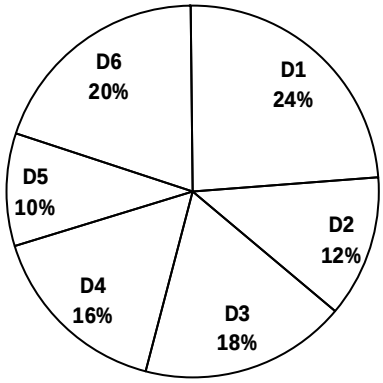
99. The population of City F is approximately what percentage of the population of City C?
(1) 66.2% (2) 87.4% (3) 113% (4) 136% (5) 151%

100. The total number of educated persons in all the six cities together is approximately what percentage of the total population of all the six cities?
(1) 6l.42% (2) 62.36% (3) 63.40% (4) 64.78% (5) 65.6%

Directions (Q. 101–105) : The following pie-charts show the percentage distribution of the total employees of two Companies A and B in different departments, and the table shows the ratio of Male to Female employees in all the departments of Company A and B. The total number of employees working in Company A and B are 8000 and 7500 respectively.



Company A



Company B

	Company A	Company B
	Male : Female	Male : Female
D_1	5 : 3	13 : 7
D_2	9 : 7	11 : 14
D_3	5 : 7	7 : 8
D_4	8 : 7	17 : 13
D_5	3 : 2	23 : 27
D_6	9 : 5	7 : 3

101. What is the total number of Female employees in D_5 of Company A and B together?
(1) 705 (2) 710 (3) 715 (4) 720 (5) 725

102. The total number of Female employees in D_1 of Company B is approximately how much per cent more than the number of Female employees in D_1 of Company A?
(1) 5% (2) 7.5% (3) 15% (4) 22.5% (5) 30%

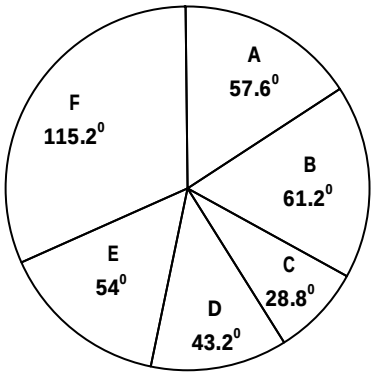
103. What is the difference between the total Male employees of Company A and the total Female employees of Company B?

(1) 1230 (2) 1232 (3) 1234 (4) 1236 (5) 1238

104. The average number of Male employees in D_1 and D_2 of Company B is approximately what percentage of the average number of Female employees in D_5 and D_6 of Company A?
(1) 177.5% (2) 197.5% (3) 212.5% (4) 217.5% (5) 227.5%

105. The total number of Females working in Company A is approximately what percentage of total employees of Company A?
(1) 42.12% (2) 43.48% (3) 44.24% (4) 45.64% (5) 46.86%

Directions (Q.106-110) : Following pie-chart shows the proportion of number of students of different schools. The table shows the percentage of girls among them.



School	% Girls
A	20%
B	30%
C	45%
D	35%
E	42%
F	45%

106. If the number of girls in School D is 462, what is the total number of the students in School C?
(1) 820 (2) 840 (3) 860 (4) 880 (5) 900

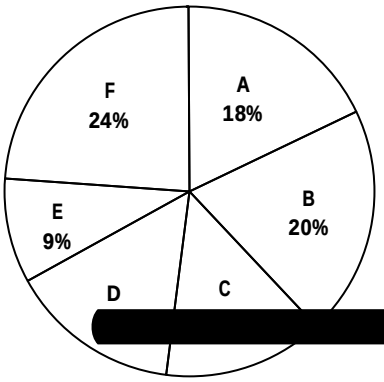
107. If the total number of students in School A is 1760, what is the total number of boys in School B?
(1) 1303 (2) 1306 (3) 1309 (4) 1312 (5) 1315

108. If the total number of students in all six schools together is 11000, what is the difference between the number of boys and that of girls in School E?
(1) 260 (2) 264 (3) 268 (4) 272 (5) 276

109. If the total number of boys in School D is 858, what is the average number of girls in School C and D together?
(1) 425 (2) 426 (3) 427 (4) 428 (5) 429

110. If the total number of boys in School F is 1936 then the number of girls in School F is what percentage of the total number of students in all the six schools together?
(1) 12.8% (2) 13.2% (3) 13.6% (4) 14.4% (5) 15.2%

Directions (Q. 111-115) : The following pie-chart shows the percentage distribution of employees in a company who are working in different units. The table shows the percentage of employees who are graduates and the ratio of males to females in these departments. The total number of employees in the company is 4000.



Department	% Graduates	Male : Female
A	45%	13 : 5
B	37%	9 : 7
C	60%	17 : 11
D	51%	14 : 11
E	55%	7 : 3
[redacted]	[redacted]	7 : 5

111. What is the percentage of employees who are graduates, taking all six departments together?
(1) 51.9% (2) 50.7% (3) 49.5% (4) 47.3% (5) 46.1%

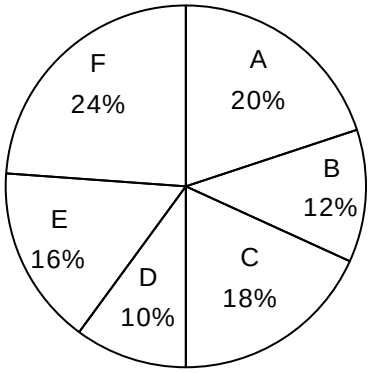
112. What is the ratio of the total Male employees of Unit B to the total Female employees of Unit E?
(1) 21:5 (2) 23:7 (3) 25:6 (4) 27:7 (5) 28:9

113. The total number of Male employees in Unit D is what percentage of the total number of employees of the company?
(1) 8.4% (2) 9.6% (3) 12.5% (4) 14.2% (5) 15.75%

114. The total number of employees in Unit A who are graduates is what percentage more than the total number of Female employees in that unit?
(1) 60% (2) 62% (3) 64% (4) 66% (5) 68%

115. What is the difference between the total number of Male employees and the total number of Female employees of the company?
(1) 848 (2) 896 (3) 916 (4) 936 (5) 954

Directions (Q.116-120) : There are six companies which produce two types of TV (LED and LCD). The total production cost of all six companies together is 8 crore rupees. The following pie-chart shows the percentage distribution of the total production, and the table shows the ratio of production of LED to LCD TV and per cent profit for these two types.



	Ratio of Production	% Profit earned	
	LED : LCD	LED	LCD
A	2 : 3	30	24
B	7 : 5	25	35
C	4 : 5	20	30
D	3 : 2	15	25
E	9 : 7	32	24
F	3 : 5	35	20

116. What is the total production cost (in Rs) of LCD TV by Company A and D together?
(1) 1.24 crore (2) 1.28 crore (3) 1.32 crore (4) 1.36 crore (5) 1.4 crore

117. What is the total profit earned by Company F for both LED and LCD together? (Answer in crore)
(1) Rs 0.426 (2) Rs 0.464 (3) Rs 0.492 (4) Rs 0.524 (5) Rs 0.584

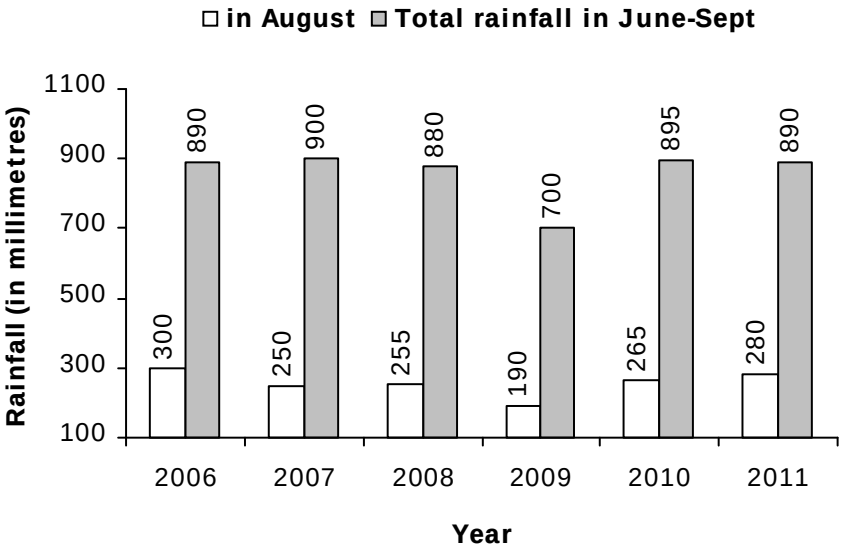
118. What is the ratio of the profit earned on LED to that on LCD TV by Company B?
(1) 5 : 7 (2) 12 : 25 (3) 3 : 7 (4) 3 : 5 (5) None of these

119. What is the sum of the profit earned by Company E on LCD and that by Company C on LED? (Answer in lakh)
(1) Rs 22.48 (2) Rs 24.84 (3) Rs 26.24 (4) Rs 28.75 (5) Rs 32

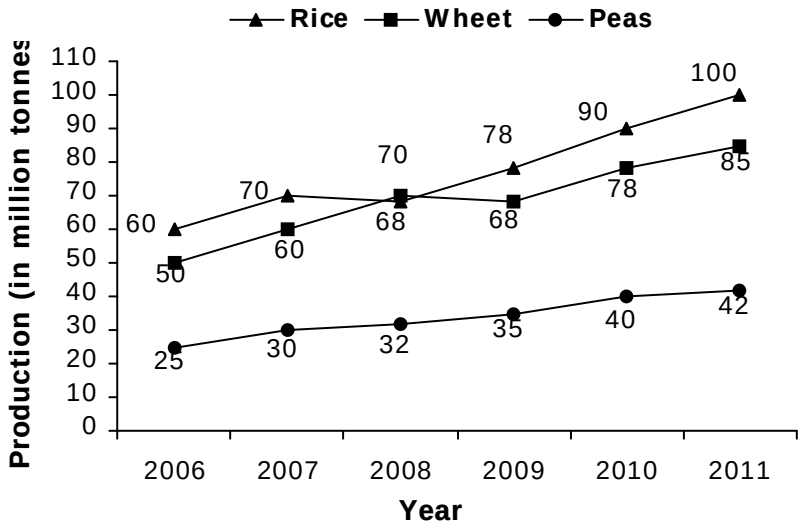
120. The profit earned by Company D on LCD TV is what per cent of the total production cost of Company A on LED TV? (Answer in approximate value)
(1) 7.5% (2) 10% (3) 12.5% (4) 15% (5) 17.5%

Directions (Q.121-125) : Study the graphs below and answer the questions that follow.

Rainfall in August and rainfall during the entire June-September season over the years



Production of foodgrains (in million tonnes) over the years



121. What is the approximate percentage of average rainfall in August with respect to that in June to September for all the given years?
(1) 32% (2) 35% (3) 30% (4) 38% (5) None of these

122. What is the percentage of rainfall in August 2009 with respect to that in same month in all the years together?
(1) 14.66% (2) 12.33% (3) 16.13% (4) 18.43% (5) None of these

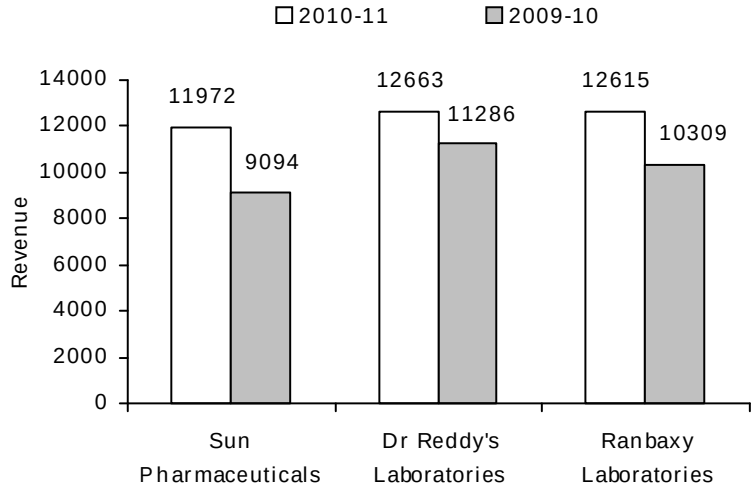
123. In which of the following years the percentage rainfall in August is maximum with respect to the total rainfall in that year?
(1) 2006 (2) 2007 (3) 2008 (4) 2009 (5) None of these

124. In which of the following years the production of wheat is maximum with respect to total rainfall in the same year?
(1) 2006 (2) 2007 (3) 2008 (4) 2009 (5) None of these

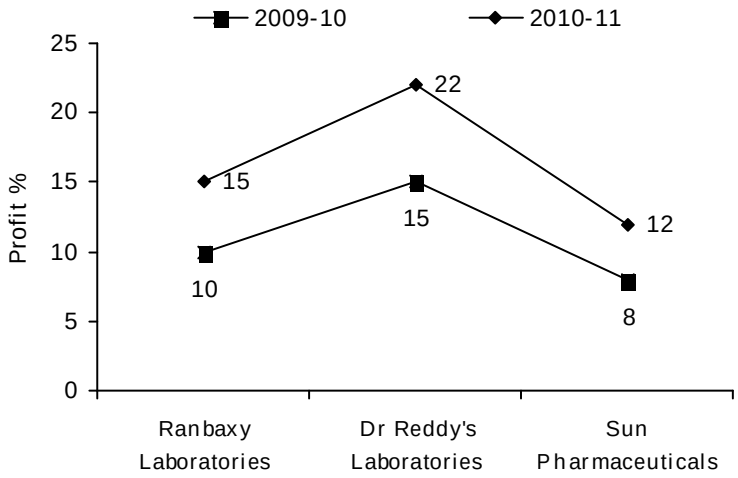
125. In which of the following years percentage increase/decrease in the production of rice is maximum with respect to that of the previous year?
(1) 2006 (2) 2007 (3) 2008 (4) 2010 (5) None of these

Directions (Q. 126-130): Study the graph below and answer the questions that follow:

Revenue of top three Indian pharmaceutical companies in FY 2009-10 and 2010-11 in (` crore): Profit = Revenue - Expenditure



% profit of the three pharmaceutical companies



126. What is the approximate difference (in `) between the average revenue of all the three pharma companies in the year 2009-10 and that in 2010-11
(1) 1500 crore (2) 2187 crore (3) 1987 crore (4) 1438 crore (5) None of these

127. What is the approximate difference in expenditure (in `) of Dr Reddy's the Sun pharma in the FY 2009-10?
(1) 1400 crore (2) 1349 crore (3) 1394 crore (4)1450crore (5)1300crore

128. What is the difference (in `) between the revenues generated by all the three pharma' companies

in the FY 2009-10 and 2010-11?

(1) 9224 crore (2) 9000 crore (3) 8665 crore (4) 6561 crore (5) Can't be determined

129. What is the percentage of revenue of Sun Pharmaceuticals with respect to total revenue of all three companies in FY 2010-11?

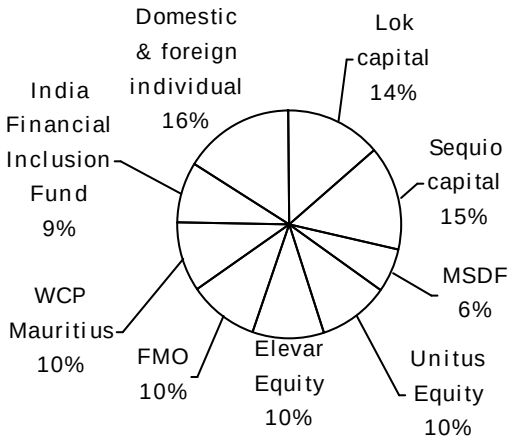
(1) 25.87% (2) 27.89% (3) 28.30% (4) 32.14% (5) 29.08%

130. What is the approximate increase/decrease in expenditure (in `) of Ranbaxy Laboratories in the FY 2010-11 over its previous year?

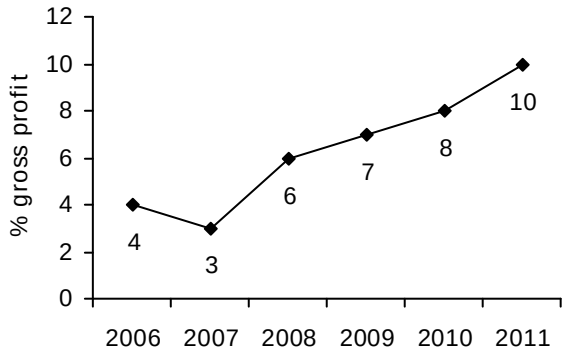
(1) 1598 crore (2) 1648 crore (3) 1545 crore (4) 1608 crore (5) Can't be determined

Directions (Q. 131-135): Study the following pie-chart, line graph and table and answer the questions that follow.

Share holding of Institutions, Foreign and Domestic individuals in Microfinance institutions in 2011



The following line graph show the percentage profit in different years.



The following table shows the tax paid on profits over the years

Year	Tax paid on profit
2006	10%
2007	8%
2008	10%
2009	12%
2010	10%
2011	10%

Dividend = Gross profit - Tax

Dividend (Net profit) is provided to shareholders according to their investment ratio in microfinance institutions.

Note: The money invested by Unitus Equity fund in microfinance institutions is ` 80 crore.

131. What would have been the total dividend (in `) collected to provide all the shareholders, after doing business in the year 2011?
(1) 80 crore (2) 82 crore (3) 72 crore (4) 78 crore (5) Can't be determined

132. What would have been the difference (in `) between the dividend received by India Financial Inclusion Fund and WCP Mauritius?
(1) 82 lakh (2) 96 crore (3) 76 lakh (4) 72 crore (5) Can't be determined

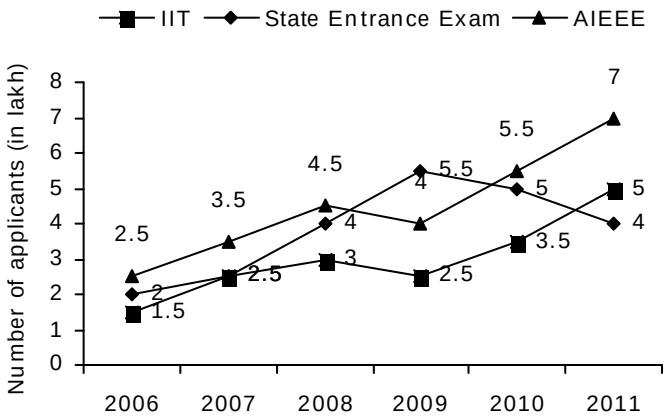
133. If in 2007 total money received by the shareholders was ` 600 crore then what is the ratio of tax paid in the year 2007 to that in year 2011?
(1) 15 : 47 (2) 9 : 50 (3) 8 : 47 (4) 16 : 47 (5) Can't be determined

134. If the money received by shareholders in the year 2010 is 10% less than that in 2011, what was the dividend (in `) received by Sequio Capital in the year 2010?
(1) 7.78 crore (2) 8.96 crore (3) 6.98 crore (4) 6.90 crore (5) Can't be determined

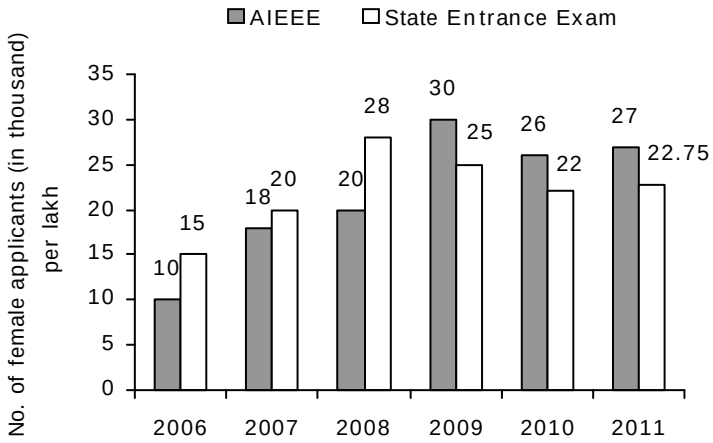
135. If the total money received by the shareholders is ` 800 crore in 2011 what is the ratio of the money invested and the total money received by Elevar Equity in the year 2011?
(1) 105 : 119 (2) 100 : 109 (3) 99 : 100 (4) 99 : 105 (5) None of these

Directions (Q.136-140): Study the following graphs to answer the questions given below:

Number of applicants (in lakh) for three different engineering entrance exams, viz IIT, AIEEE and State Entrance Exams over the years



The following graph shows the number of female applicants of AIEEE and State Entrance Exam per one lakh.



136. What is the percentage of the number of average applicants, for IIT Entrance Exam with respect to that of average applicants for AIEEE over the given period 2006-2011?

(1) 50% (2) $66\frac{2}{3}\%$ (3) 75% (4) 45% (5) None of the above

137. In which of the following years the percentage increase/decrease in the number of applicants for State Entrance Exam is maximum with respect to the previous year?

(1) 2007 (2) 2008 (3) 2009 (4) 2010 (5) None of the above

138. The number of female applicants, for State Entrance Exam is what percentage of the number of female applicants for AIEEE in the year 2011 ?

(1) 48.14% (2) 35.14% (3) 60.41% (4) 63.14% (5) Can't be determined

139. What is the approximate percentage increase or decrease in the number of male applicants for State Entrance Exam in the year 2010 with respect to the previous year?

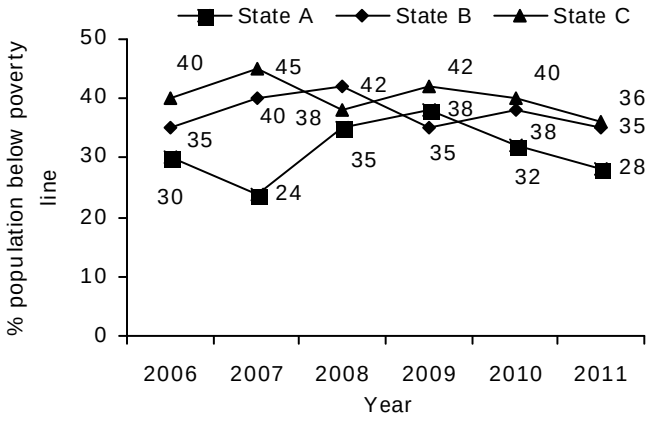
(1) 8% (2) 7% (3) 9% (4) 6% (5) Can't be determined

140. What is the ratio of the number of male applicants for IIT to that for AIEEE in the year 2009?

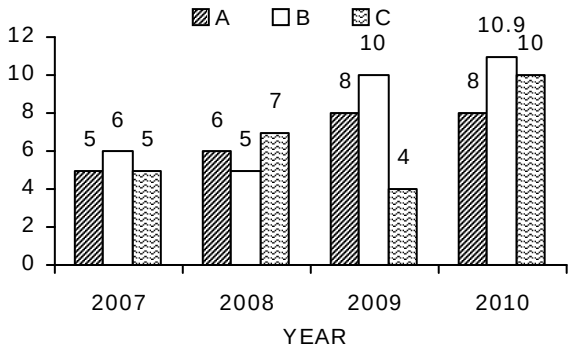
(1) 51 : 99 (2) 32 : 63 (3) 43 : 55 (4) 44 : 63 (5) Can't be determined

Directions (Q. 141-145) : Study the following line graph and the table and answer the questions given below:

Percentage of population below poverty line in different states of India from 2006 to 2011.



The bar chart shows the sex ratio per 10 males in different states below poverty line



141. What is the percentage of the population below poverty line in the year 2008 in State B with respect to that in all the years from 2006 to 2011 ?
(1) 18.66% (2) 20.33% (3) 40.66% (4) 30.66% (5) Can't be determined

142. If there is an increase of 10% in the population of State A in the year 2008, then how many females are there who are below poverty line in that state in the year 2007, if the population in 2008 was 55 lakh in that state?
(1) 4 lakh (2) 5.2 lakh (3) 4.9 lakh (4) 3.05 lakh (5) None of these

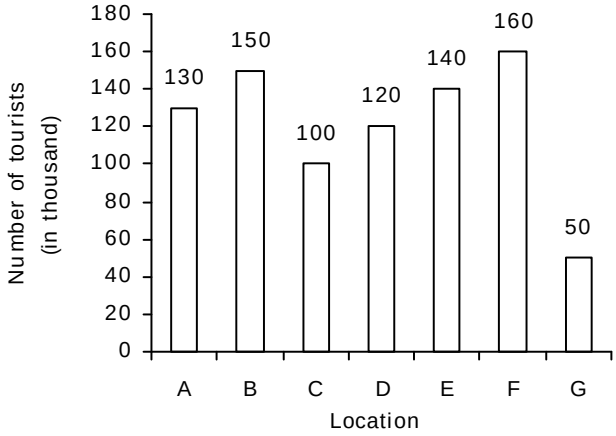
143. If in the year 2010 the population of State A, B and C was 60 lakh, 55 lakh and 62 lakh respectively, then what is the total population below poverty line in the year 2010 in all three states?
(1) 75.60 lakh (2) 64.9 lakh (3) 74.9 lakh (4) 66.50 lakh (5) None of these

144. If the population of State B and C in the year 2010 was 55 lakh and 62 lakh respectively then what will be the ratio of the females below poverty line in State B to that of the females below poverty line in State C in the year 2010?
(1) 85:99 (2) 82:97 (3) 109:124 (4) 97:123 (5) None of these

145. The population of State C in the year 2007 is 40 lakh. If there is an annual growth of 10% in the population of State C from year 2007 to 2009 then what is the percentage increase or decrease in the number of males below poverty line in the year 2009 with respect to that in the year 2007?
(1) 21% increase (2) 15% increase (3) 14% increase (4) 18% decrease (5) None of these

Directions (Q. 146-150) : Study the following graph and table and answer the questions given below:

Number of tourists that visited seven different locations of India in the year 2011 (in thousand)



The table shows the percentage of males, females and children visiting the seven locations

[redacted]

in the year 2011

Location	Males	Females	Children
A	35%	45%	20%
B	40%	30%	30%
C	50%	38%	12%
D	45%	40%	15%
E	35%	55%	10%
F	55%	35%	10%
G	65%	30%	5%

146. What is the percentage of the number of people visiting location G with respect to that visiting all other locations in the year 2011?
(1) 6.25% (2) 11.36% (3) 8.15% (4) 10.05% (5) None of these

147. What is ratio of the number of females visiting B in the year 2011 to that visiting F in the same year?
(1) 1:1 (2) 45:56 (3) 47:56 (4) 23:28 (5) None of these

148. Due to some typing mistakes if the percentage of males, females and children visiting location B gets interchanged with the percentage of the same visiting C, then what will be the percentage of children visiting C with respect to that of males visiting B in the year 2011?
(1) 45% (2) 48% (3) 40% (4) 50% (5) 51%

149. If there is a growth of $12\frac{1}{2}\%$ in the total number of people visiting all the locations in India in year 2011 over the previous year, then what was the number of people visiting location D in year 2010?
(1) 106.7 thousand (2) 105.45 thousand (3) 104.8 thousand
(4) 103.4 thousand (5) Can't be determined

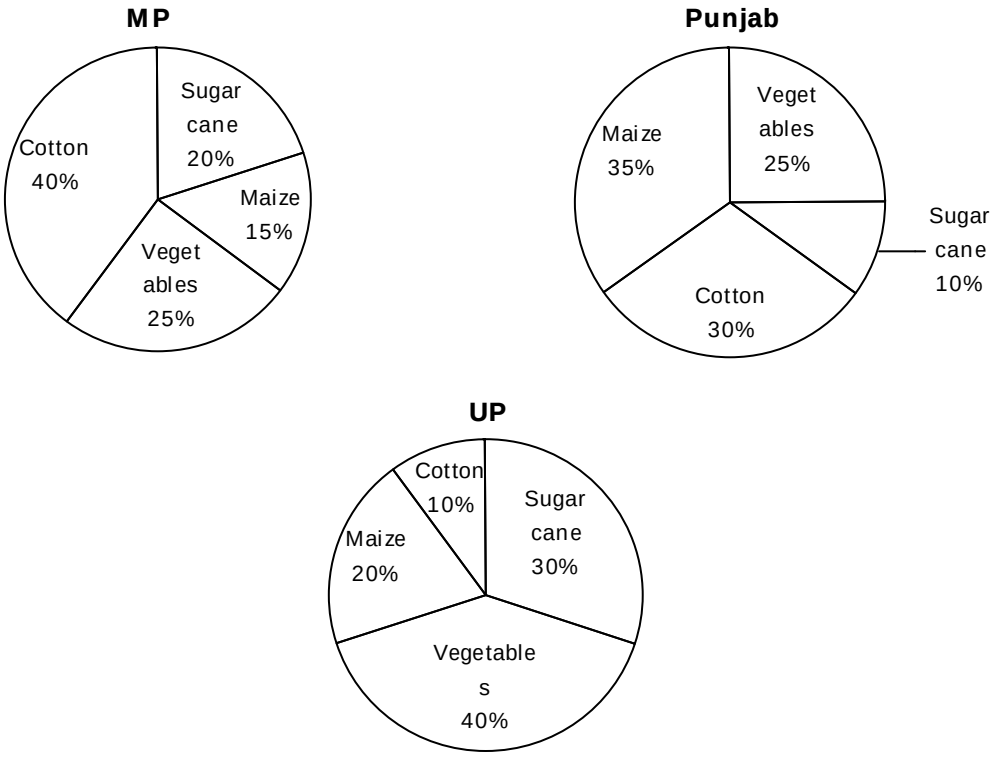
150. What is the ratio of the number of males visiting F to the number of females visiting D in the year 2011 ?
(1) 22:11 (2) 23:13 (3) 12:13 (4) 11:6 (5) None of these

Directions (Q. 151-155) : Study the table and pie-charts and answer the questions that follow.

The following table gives the food-grain production in India (in lakh tonnes) by six states and the remaining other states in the year 2010.

State	Rice	Wheat	Jowar	Pulses	Other
UP	49	95	73	20	28
Bihar	51	89	69	21	15
MP	60	40	52.8	16	33
Maharashtra	42	38	43	23	18
AP	70	30	15	—	13
Punjab	58	120	—	12	15
Others	40	38	35	29	50

The following pie-charts show the percentage share of 'Other' of three states MP, Punjab and UP in the year 2010.



151. The production of wheat in UP is approximately what per cent of the total production of wheat in India in the year 2010?
(1) 28% (2) 23% (3) 21% (4) 25% (5) 27%

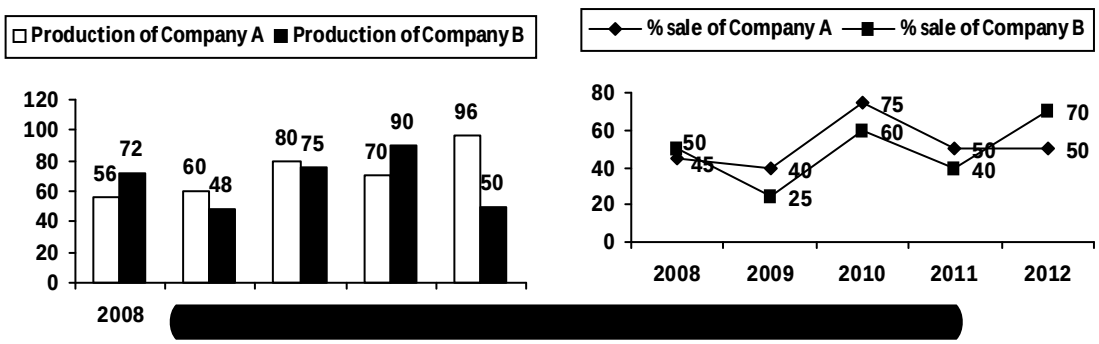
152. The production of cotton is approximately what percentage of the production of jowar in MP in the year 2010?
(1) 28% (2) 30% (3) 35% (4) 22% (5) None of these

153. What is the ratio of the production of pulse to that of vegetables in UP in the year 2010?
(1) 25:14 (2) 25:13 (3) 19:26 (4) 26:11 (5) None of these

154. If there is uniform growth of 10% in the production of each constitutents of foodgrains in MP in 2010 over the previous year, then what was the production of sugar in the previous year if the percentage share of production was the same for both the years?
(1) 10 lakh tonnes (2) 12 lakh tonnes (3) 6 lakh tonnes
(4) 8 lakh tonnes (5) None of these

155. What is the approximate difference in the average production of rice and wheat in all the states in the year 2010? (in lakh tonnes)
(1) 20 (2) 30 (3) 35 (4) 11 (5) None of these

Directions (Q. 156-160) : The following bar graph shows the production of cycle (in thousand) by two companies A and B over the period 2008-2012 and the line-graph shows the percentage sale of these companies.



156.

156. What is the total sale (in thousand) of Company A during 2008 to 2012?
(1) 181 (2) 190 (3) 197 (4) 204 (5) 212

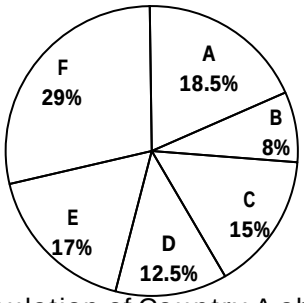
157. The sale of Company B in the year 2010 is approximately what per cent of the sale of Company B in the year 2008?
(1) 80% (2) 96% (3) 112% (4) 120% (5) 125%

158. What is the average number of sale of Company B over the period 2008-2012?
(1) 30400 (2) 31200 (3) 32800 (4) 33500 (5) 34000

159. In which of the following years, the percentage rise/fall in the production of Company B is the highest on comparison to its previous year?
(1) 2008 (2) 2009 (3) 2010 (4) 2011 (5) 2012

160. The sale of Company B in the year 2011 is approximately, what per cent more or less than the sale of Company A in the year 2009?
(1) 20% (2) 30% (3) 33.33% (4) 40% (5) 50%

Directions (Q. 161-165) : Total population of six countries (A, B, C, D, E and F) together is 90 crore. The following pie-chart shows the percentage distribution of population among these countries and the table shows the percentage of population who are below poverty line.



Country	% Below Poverty Line
A	64%
B	70%
C	60%
D	72%
E	50%
F	56%

161. What is the population of Country A above poverty line?
(1) 4.848 crore (2) 5.994 crore (3) 6.124 crore (4) 6.862 crore (5) None of these

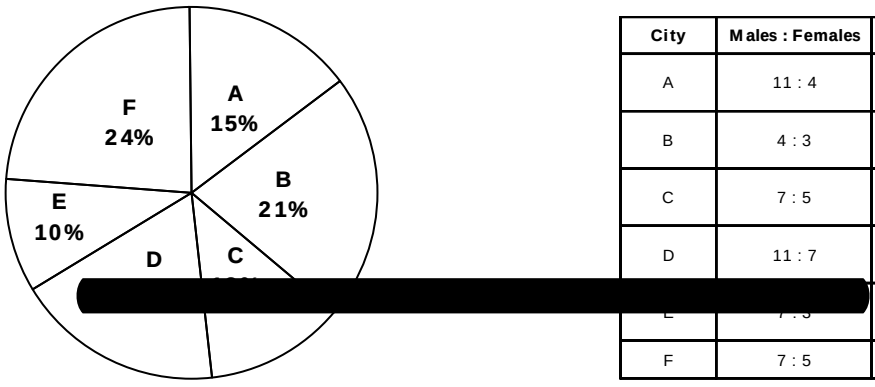
162. What is the difference between the population of Country D, below poverty line and that above poverty line?
(1) 8.15 crore (2) 7.45 crore (3) 6.25 crore (4) 5.75 crore (5) 4.95 crore

163. What is the total population of all six countries together below poverty line. (Answer in crore)
(1) 48.712 (2) 50.64 (3) 52.312 (4) 54.162 (5) 56.864

164. What is the ratio of the population of Country C above poverty line to the population of Country D below poverty line?
(1) 4:5 (2) 3:4 (3) 2:3 (4) 1:2 (5) 3:5

165. The population of Country B above poverty line is approximately what percentage of the population of Country E below poverty line?
(1) 28% (2) 32% (3) 36% (4) 40% (5) 45%

Directions (Q. 166-70): There are 9 lakh newspaper readers from six cities together. The following pie-chart shows the distribution of these readers among these cities and the table shows the ratio of male readers to female readers and the ratio of Hindi readers to English readers.



City	Males : Females	Hindi : English
A	11 : 4	7 : 2
B	4 : 3	13 : 8
C	7 : 5	2 : 1
D	11 : 7	5 : 4
E	[illegible]	7 : 2
F	7 : 5	5 : 3

166. What is the average number of female readers from all six cities together?

(1) 51000 (2) 53000 (3) 55000 (4) 57000 (5) 59000

167. What is the difference between the total Hindi newspaper readers and English newspaper readers?

(1) 2.72 lakh (2) 2.75 lakh (3) 2.78 lakh (4) 2.8 lakh (5) 2.84 lakh

168. The total number of male newspaper readers from City F is approximately what percentage of the total number of English newspaper readers from City B?

(1) 125% (2) 150% (3) 175% (4) 200% (5) None of these

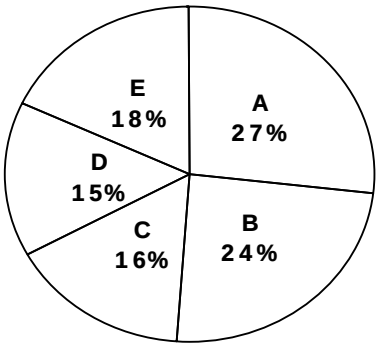
169. What is the ratio of female newspaper readers from City D to Hindi newspaper readers from City A?

(1) 2 : 3 (2) 3 : 4 (3) 2 : 5 (4) 3 : 5 (5) 4 : 5

170. Female newspaper readers from City B is approximately what percentage more or less than the female newspaper readers from City C?

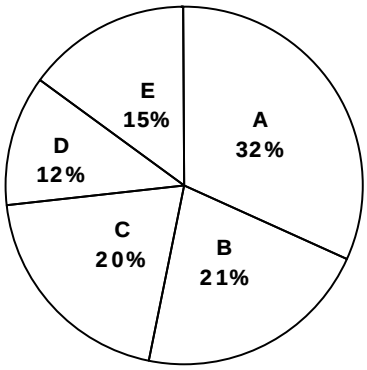
(1) 80% (2) 75% (3) 60% (4) 50% (5) 45%

Directions (Q.171-175): The following pie-charts show the percentage distribution of total students who appeared from five different states in IAS Exam and the percentage distribution of successful students from these states. The tables show the ratio of students from urban area to rural area among these appeared and successful students.



Total students appeared = 80000

State	Urban : Rural
A	16 : 11
B	5 : 3
C	9 : 7
D	7 : 5
E	11 : 7



Total successful students = 24000

State	Urban : Rural
A	17 : 15
B	4 : 3
C	7 : 3
D	17 : 7
E	11 : 4

171. What is the total number of students who appeared in the exam from the Rural area of all these five states?

(1) 30400 (2) 31800 (3) 32200 (4) 33500 (5) 34700

172. What is the difference between the Urban students who appeared and the students who succeeded from State B?

(1) 6740 (2) 7650 (3) 8720 (4) 9120 (5) 9550

173. The total number of Rural students who succeeded from State B is what percentage of the total students who appeared from Rural areas of the same state?

(1) 20% (2) 30% (3) 40% (4) 50% (5) 60%

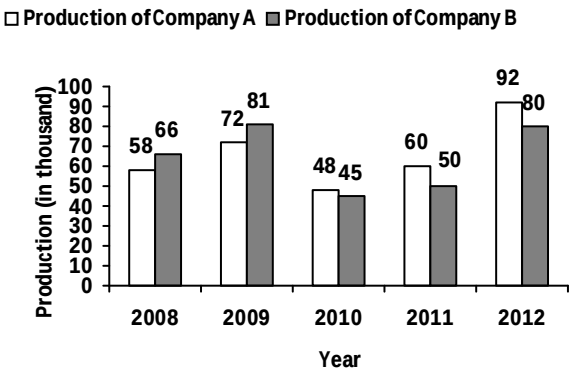
174. What is the average of Urban students who appeared in the exam from all five states?

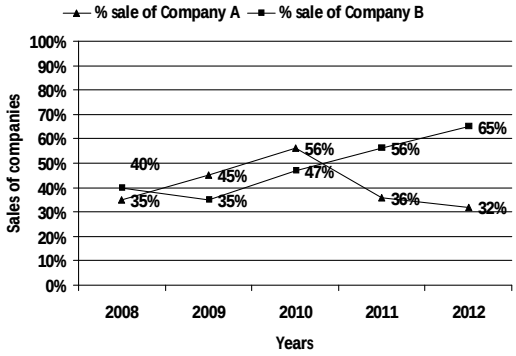
(1) 8740 (2) 8850 (3) 9080 (4) 9230 (5) 9560

175. The total number of successful Rural students from State A is approximately what percentage more or less than the total successful Urban students from State E?

(1) 36% (2) 40% (3) 44% (4) 48% (5) 56%

Directions (Q. 176-180): The following bar graph shows the number of items (in thousand) produced by two companies A and B and the line graph shows the percentage sale of items of these companies over the years.





176. What is the total number of items sold by Company B in the year 2010?

(1) 20750 (2) 21150 (3) 22310 (4) 23480 (5) 24540

177. What is the difference between the total number items sold by Company A in the year 2012 and that in 2011 ?

(1) 7210 (2) 7420 (3) 7630 (4) 7840 (5) 8060

178. The items sold by Company B in the year 2009 is approximately what per cent of the items sold by it in the year2012?

(1) 48.5% (2) 51% (3) 54.5% (4) 57% (5) 63.5%

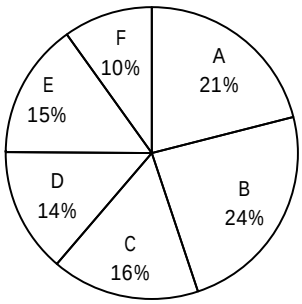
179. What is the average number of items sold by Company A during the year 2008 to 2012?

(1) 21326 (2) 22415 (3) 24312 (4) 25604 (5) 26124

180. In year 2011, the number of items sold by Company B is approximately what percentage more or less than the number of items sold by Company A?

(1) 16% (2) 20% (3) 24% (4) 30% (5) 36%

Directions (Q.181-185): The following pie-chart shows the distribution of the total population of six cities and the table shows the percentage of adults in these cities and the ratio of males to females among these adult populations.



Total = 8.5 lakh

City	% Adult	Males : Females
A	72%	7 : 5
B	65%	8 : 5
C	75%	3 : 2
D	80%	9 : 7
E	70%	4 : 3
F	60%	7 : 5

181. The adult population of City E is approximately what per cent of the adult population of City F?
(1) 75% (2) 120% (3) 125% (4) 150% (5) 175%

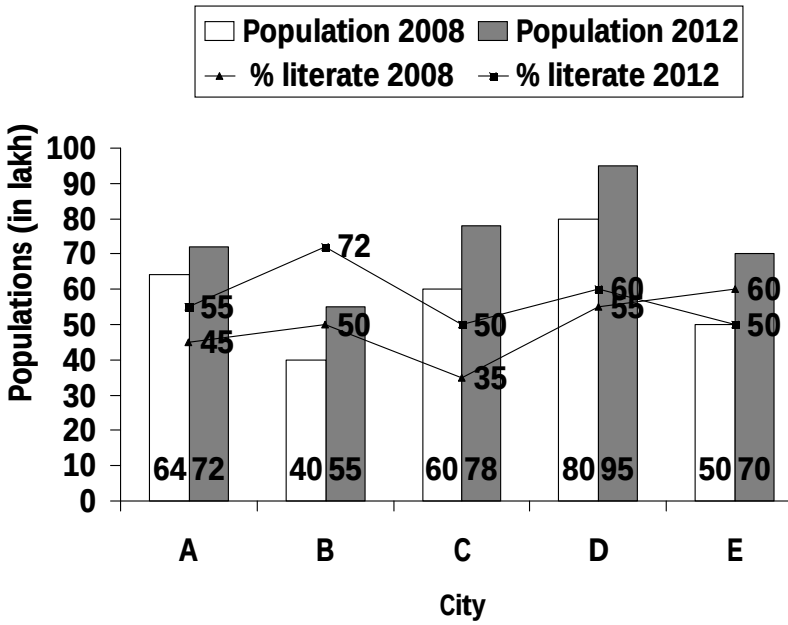
182. What is the difference between the total adult population of City B and the total population of City D? (1) 13600 (2) 14200 (3) 14850 (4) 15200 (5) 15640

183. What is the difference between the adult male population and the adult female population of City C?
(1) 16200 (2) 17800 (3) 18600 (4) 19200 (5) 20400

184. The adult female population of City A is approximately what per cent of its total population?
(1) 24% (2) 28% (3) 30% (4) 32% (5) 36%

185. The adult male population of City B is approximately what percentage more or less than its adult female population?
(1) 35% (2) 40% (3) 50% (4) 55% (5) 68%

Directions (Q. 36-40): The following bar-graph shows the population (in lakh) of five cities in the years 2008 and 2012 and the line graph shows the percentage of literate among them.



186. What is the percentage rise in the population of City A from the year 2008 to 2012?
(1) 8% (2) 12.5% (3) 15% (4) 17.5% (5) 20%

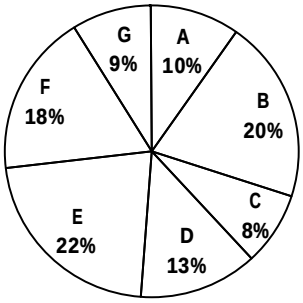
187. What is the total literate population of all cities together in the year 2008?
(1) 1.394 crore (2) 1.43 8 crore (3) 1.512 crore (4) 1.548 crore (5) None of these

188. In which of the following cities is the percentage rise in the population from the year 2008 to 2012 the maximum? (1) A (2) B (3) C (4) D (5) E

189. What is the percentage rise in the literate population of City B from the year 2008 to 2012?
(1) 86% (2) 90% (3) 94% (4) 98% (5) 102%

190. What is the total illiterate population of all cities together in the year 2012?
(1) 1.598 crore (2) 1.624 crore (3) 1.728 crore (4) 2.102 crore (5) 2.428 crore

Directions (Q.191-195): The total population of seven cities together is 90 lakh. Given pie-chart shows the percentage distribution of this population and the table shows the percentage population below poverty line in these cities.



Total population = 9 Lakh

City	population below poverty line
A	48%
B	45%
C	35%
D	40%
E	55%
F	45%
G	50%

191. What is the population of City C which is above poverty line?
(1) 4.12 lakh (2) 4.48 lakh (3) 4.68 lakh (4) 4.84 lakh (5) 5.12 lakh

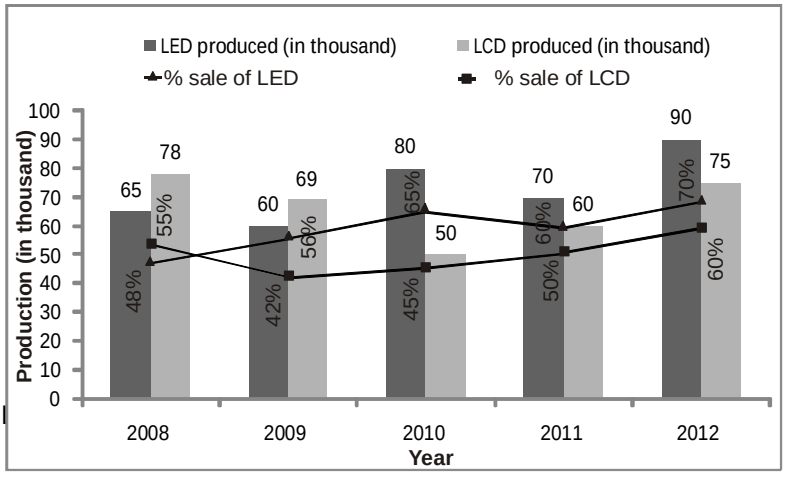
192. What is the difference between the population of City E which is below poverty line and that which is above poverty line?
(1) 1.72 lakh (2) 1.98 lakh (3) 2.24 lakh (4) 2.48 lakh (5) 2.72 lakh

193. What is the ratio of the population of City A which is above poverty line to the population of City D which is below poverty line?
(1) 1:1 (2) 2:3 (3) 3:4 (4) 5:4 (5) 5:3

194. The population of City G which is above poverty line is approximately what per cent of the population of City A which is below poverty line?
(1) 87% (2) 90% (3) 94% (4) 96% (5) 97%

195. The population of City B which is below poverty line is approximately what per cent more/less than the population of City D which is below poverty line?
(1) 51% (2) 57% (3) 64% (4) 73% (5) 78%

Directions (Q. 196-200): The following bar graph shows the LED and LCD TVs produced by Samsung in different years and the line graph shows the percentage sale of LED and LCD TV in these years.



196. What is the total number of LCDs sold by Samsung in the year 2009?
(1) 27520 (2) 28980 (3) 29340 (4) 30720 (5) 31450

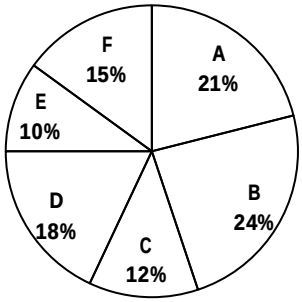
197. What is the average number of LEDs sold by Samsung in all five years?
(1) 42540 (2) 43250 (3) 44360 (4) 45120 (5) 46140

198. LCDs sold by Samsung in the year 2010 is approximately what per cent of the LED's produced by it in the year 2009?
(1) 30% (2) 33% (3) 35% (4) 38% (5) 40%

199. In which of the following years is the number of unsold LED TVs the minimum?
(1) 2008 (2) 2009 (3) 2010 (4) 2011 (5) 2012

200. LCD TVs sold in the year 2012 is approximately what percentage more/less than the LED TVs sold in the year 2009?
(1) 30% (2) 34% (3) 38% (4) 42% (5) 46%

Directions (Q. 201-205): There are six companies which produce a particular item in two models M_1 and M_2. These companies produce 5 lakh items. The given pie-chart shows the percentage distribution of the total items produced and the table shows the ratio of model M_1 to M_2 produced by these companies and their percentage sale.



(5 lakh items)

Company	Ratio $M_1 : M_2$	% sale M_1	% sale M_2
A	4 : 3	48%	45%
B	3 : 5	60%	54%
C	2 : 1	75%	65%
D	4 : 5	55%	70%
E	3 : 2	50%	60%
F	8 : 7	45%	65%

201. What is the total number of model M_2 items sold by Company A?
(1) 19750 (2) 20250 (3) 21450 (4) 22500 (5) None of these

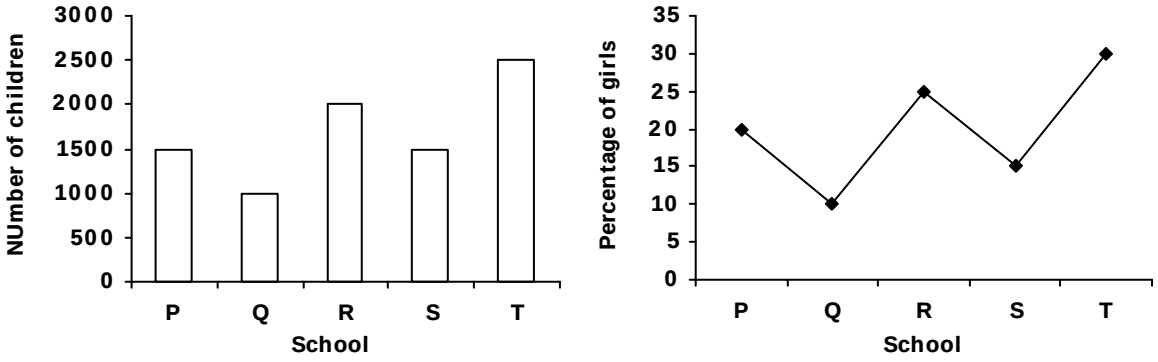
202. If Company C sells model M_2 items at the rate of `115 per item, how much money did it earn by selling all M_2 items?
(1) `11.25 lakh (2) `12.45 lakh (3) `13.75 1akh (4) `14.95 lakh (5) None of these

203. The total number of model M_2 items sold by Company E is what per cent of the total number of model M_1 items sold by Company C?
(1) 30% (2) 35% (3) 40% (4) 45% (5) 50%

204. What is the difference between the total number of model M_2 items sold by Company F and the total number of model M_1 items sold by Company D?
(1) 750 (2) 800 (3) 850 (4) 900 (5) 950

205. What is the total number of unsold items of model M_1 and M_2 of Company B?
(1) 50000 (2) 52500 (3) 55000 (4) 57500 (5) 60000

Directions (Q. 206-210): The bar graph shows the total number of children in five different schools and the line graph shows the percentage of girls in them.



206. What is the approximate percentage of boys in School P and R together?
(1) 65% (2) 79% (3) 82% (4) 85% (5) 77%

207. What is the total number of boys in School S and School T together?
(1) 3075 (2) 3044 (3) 3095 (4) 3025 (5) 3041

208. What is the average number of boys in School R and School T together?
(1) 1602 (2) 1644 (3) 1675 (4) 1650 (5) 1625

209. What is the ratio of the number of girls in School P to the number of boys in School T?
(1) 35:7 (2) 7:35 (3) 6:35 (4) 35:6 (5) None of these

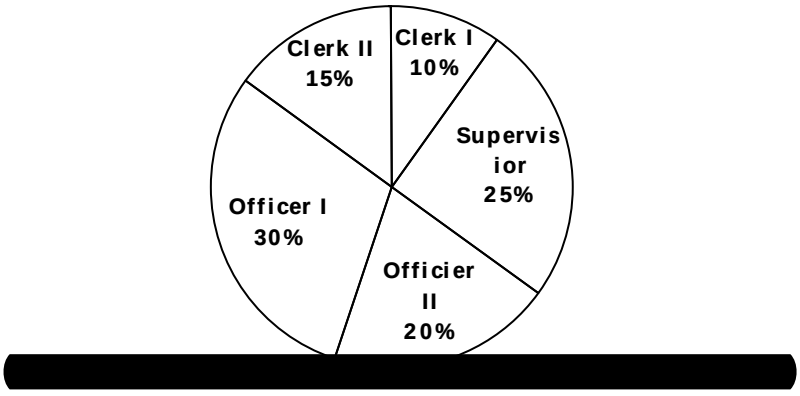
210. The number of boys in School T is approximately what per cent of the number of girls in School S?
(1) 790% (2) 795% (3) 731% (4) 778% (5) 765%

Directions (Q. 211-215): Study the following information to answer the given questions:

The pie-chart shows the percentage of different types of employees in an organisation and the table shows the percentage of employees recruited through two modes for the different posts among them in the organisation.

	Out of these Direct %	Out of these promotees %
Supervisor	30%	70%
Clerk I	100%	0%
Clerk II	-	60%
Officer I	40%	-
Officer II	60%	-

Total employees = 8000



211. What is the difference between direct-recruit Supervisors and promotee Supervisors?
(1) 700 (2) 800 (3) 900 (4) 600 (5) None of these

212. Promotee in Clerk II are what per cent of direct-recruits in Clerk II?
(1) 120% (2) 130% (3) 150% (4) 160% (5) None of these

213. What is the total number of direct-recruit Officer II?
(1) 945 (2) 968 (3) 975 (4) 960 (5) None of these

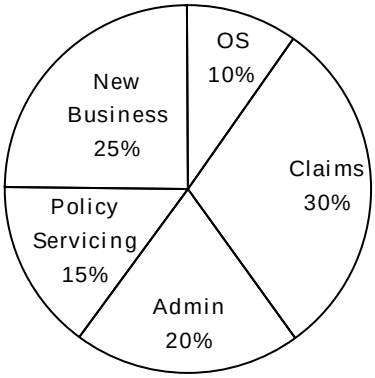
214. Find the total number of employees in direct-recruit Officer I and Promotee Officer II cadre.
(1) 1400 (2) 1470 (3) 1685 (4) 1800 (5) 1600

215. Find the total number of employees of direct-recruit Supervisor, Clerk II and Officer II.
(1) 2055 (2) 2035 (3) 2045 (4) 2065 (5) 2040

Directions (Q. 216-220) : Study the following information carefully to answer these questions.

The pie-chart shows the percentage of employees in various departments of LIC of India and the table shows the ratio of males to females among them.

Total number of employees = 3000



Department	Male : Female
Claims	5 : 4
OS	7 : 3
New Business	8 : 7
Policy Servicing	2 : 3
Admin	1 : 2

216. What is the ratio of male employees in OS (Office Servicing) to those in Policy Servicing department? (1) 8:5 (2) 6:5 (3) 3:5 (4) 7:6 (5) 6:7

217. The number of male employees in Claims Department is approximately what percentage more than the number of female employees in Office Servicing department (OS) ?
(1) 470 (2) 500 (3) 435 (4) 456 (5) None of these

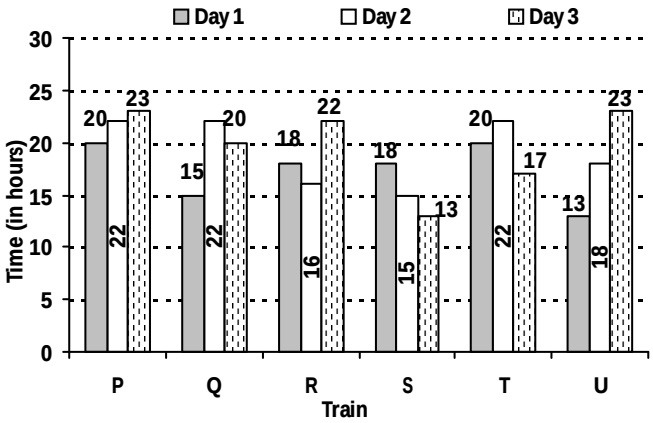
218. What is the difference between the total number of employees in Admin department and the number of female employees in New Business department?
(1) 250 (2) 310 (3) 225 (4) 325 (5) 275

219. What is the ratio of the total number of males in Office Servicing (OS) and New Business departments to the total number of females in these two departments?
(1) 65:43 (2) 63:44 (3) 61:43 (4) 61:44 (5) None of these

220. How many female employees are there in the Admin department?
(1) 415 (2) 401 (3) 435 (4) 465 (5) 400

Directions (221-225): Study the following graph and table carefully and answer the questions given below.

Time taken to travel (in hours) by six trains on three different days



Distance covered (in kilometres) by six trains each day

Train	Day I	Day 2	Day 3
P	980	704	1127
Q	720	1012	1120
R	1044	1008	1254
S	1026	855	741
T	1140	1144	918
U	871	1224	1518

221. Which of the following trains travelled at the same speed on all three days?
(1) S (2) P (3) R (4) T (5) U

222. What was the difference between the speed of Train P on Day 1 and the speed of Train S on Day 2?
(1) 7km/hr (2) 9km/hr (3) 7.5km/hr (4) 8.5km/hr (5) 8km/h

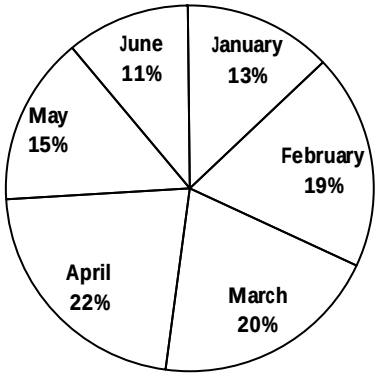
223. What was the speed of Train R on Day 2 in terms of metre per second?
(1) 17.80 m/s (2) 17.5 m/s (3) 18 m/s (4) 17.88 m/s (5) 18.8 m/s

224. The distance travelled by Train U on Day 3 was approximately what per cent of the distance travelled by it on Day 1?
(1) 95% (2) 92% (3) 91% (4) 98% (5) 96%

225. What is the ratio of the speeds of Train T to Train U on Day 2?
(1) 13:17 (2) 13:15 (3) 17:15 (4) 19:17 (5) None of these

Directions (Q. 226-230): Study the following pie-chart and table carefully and answer the questions given below.

Percentage distribution of the number of computers sold by a shopkeeper during six months
Total number of computers sold = 75000



The ratio of the number of computers of Company X to the number of computer of Company Y sold during six months

Month	Ratio
January	21 : 4
February	12 : 13
March	3 : 2
April	17 : 8
May	19 : 6
June	4 : 11

226. What is the ratio of the number of computers of Company Y sold during January to that sold during April?
(1) 135:132 (2) 132:137 (3) 39:132 (4) 113:39 (5) None of these

227. If 37% of the computers of Company Y were sold at a discount in May, how many computers of Company Y were sold without any discount during the same month?
(1) 1690 (2) 1691 (3) 1707 (4) 1701 (5) 1700

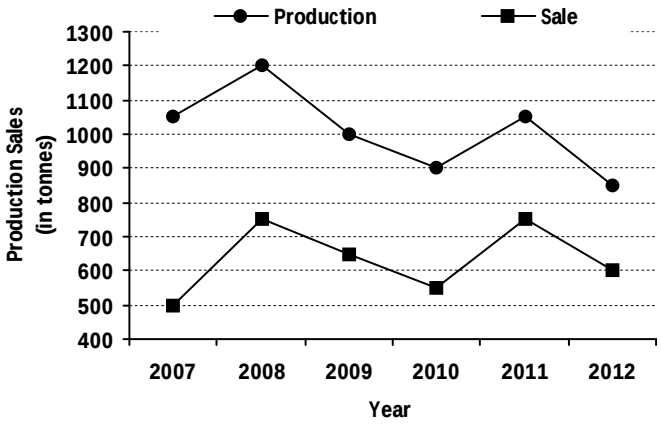
228. If the shopkeeper earned a profit of ` 517 on each computer of company Y sold during April, what was his total profit earned on the computer of that company during the same month?
(1) ` 5800740 (2) ` 2729760 (3) ` 3729760 (4) ` 5900741 (5) None of these

229. The number of computers of Company X sold during January is approximately what per cent of the number of computers of Company X sold during May?
(1) 90% (2) 78% (3) 80% (4) 83% (5) 96%

230. What is the total number of computers of Company Y sold during May and June?
(1) 6330 (2) 6340 (3) 6320 (4) 6600 (5) 8750

Directions (Q. 231-235): Study the following information and answer the questions that follow.

The graph given below represents the production and sales (in tonnes) of Company X during 2007-2012



The table given below represents the ratio of the production (in tonnes) of Company X to the production (in tonnes) of Company Y and the ratio of the sales (in tonnes) of Company X to the sales (in tonnes) of Company Y.

Year	Production	Sales
2007	7 : 4	3 : 7
2008	8 : 7	5 : 4
2009	4 : 5	11 : 12
2010	14 : 13	8 : 5
2011	13 : 14	9 : 7
2012	11 : 12	3 : 5

231. What is the approximate percentage increase in the production of Company Y from 2010 to the production ofCompanyYin2011?
(1) 28% (2) 23% (3) 25% (4) 29% (5) None of these

232. The sale of Company Y in the year 2008 was approximately what per cent of the production of Company Y in the same year?
(1) 60% (2) 65% (3) 56% (4) 63% (5) None of these

233. What is the average production of Company X (in tonnes) during 2007-2012?
(1) 510 (2) 522 (3) 530 (4) 527 (5) None of these

234. What is the ratio of the total production of Company X in 2008 to the total sale of Company X in 2007?
(1) 64:15 (2) 32:110 (3) 81:55 (4) 32:55 (5) 32:65

235. What is the ratio of the production of Company Y in 2009 to that in2008?
(1) 19:22 (2) 25:28 (3) 19:32 (4) 17:22 (5) 27:32

Directions (Q. 236-240) : Study the following pie-chart and table carefully to answer the questions that follow:

Total cars = 700

Distribution of cars

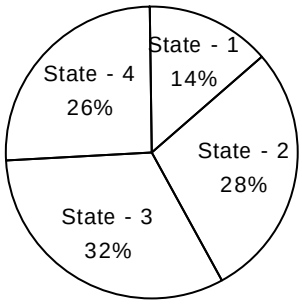


Table showing the ratio of diesel to petrol engine cars which are distributed among four different states

State	Diesel Engine Cars	Petrol Engine Cars
State-1	3	4
State-2	5	9
State-3	5	3
State-4	1	1

236. What is the difference between the number of diesel engine cars in State-2 and the number of petrol engine cars in State-4?

(1) 159 (2) 21 (3) 28 (4) 34 (5) 161

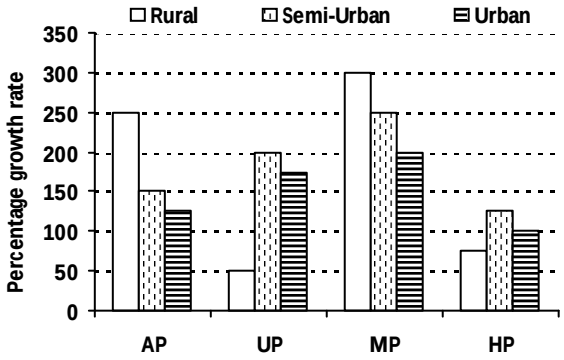
237. The number of petrol engine cars in State-3 is what percent more than the number of diesel engine cars in State-1?
(1) 100 (2) 200 (3) 300 (4) 125 (5) 225

238. If 25% of diesel engine cars in State-3 are AC and the remaining cars are non-AC, what is the number of diesel engine cars in State-3 which are non-AC?
(1) 75 (2) 45 (3) 95 (4) 105 (5) 35

239. What is the difference between the total number of cars in State-3 and the number of petrol engine cars in State-2?
(1) 96 (2) 106 (3) 112 (4) 102 (5) 98

240. What is the average number of petrol engine cars in all the states together?
(1) 86.75 (2) 89.25 (3) 89.75 (4) 86.25 (5) 88.75

Directions (Q. 241-245): These questions are based on the graph and table given below.



The above bar chart represents the growth rate of the length of the roads renovated in Rural, Semi-Urban and Urban areas from 2007-08 to 2011-12 for the states AP, UP, MP and HP.

	Length of roads renovated (in km) in 2007-08	Avg. cost of renovation (Rs.per km) in 2007-08	% growth inavg. cost of renovation from 2007-08 to 2011-12
Rural	900	40000	40%
Semi-Urban	1800	75000	50%
Urban	1300	12500	60%

241. What is the total cost (in `) for the renovation of roads in rural areas in 2011-12?
(1) 5.04 crore (2) 1.44 crore (3) 9 crore (4) 8.2crore (5) cannot be determined

242. In 2007-08, the total cost for the renovation of roads in urban areas was
(1) ` 9.615 crore (2) ` 1.625 crore (3) ` 2.6 crore (4) ` 3.2 crore (5) None of these

243. The state which has shown the highest growth rate in the length of the road renovated in all the three areas together during the period 2007-08 to 2011 -12 is
(1) HP (2) MP (3) UP (4) AP (5) Cannot be determined

Additional Information for question 244 and 245:

Assume equal distribution of length of roads in AP, MP, UP and HP in 2007-08.

244. What is the total approximate cost (in `) for the renovation of roads in the semi-urban areas in 2011-12?

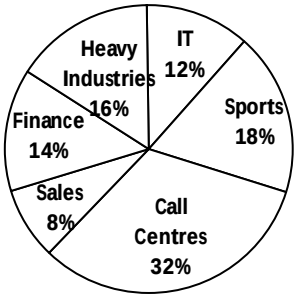
(1) 40 crore (2) 3 8 crore (3) 20.25 crore
(4) 57 crore (5) Cannot be determined

245. What is the ratio of the length of the roads to be renovated in urban area to that in semi-urban area in AP in 2011-12?

(1) 18:25 (2) 4:5 (3) 13:20 (4) 17:20 (5) Cannot be determined

Directions (Q. 246-250): Study the following pie-chart and table carefully and answer the questions given below.

The pie-chart shows the percentage of persons in a city working in night shift in different sectors.



Total number of persons = 40250

The table shows the percentage of female workers in night shift in various sectors.

Profession	Female
IT	20%
Sports	20%
Call Centres	45%
Sales	60%
Finance	40%
Heavy Industries	15%

246. What is the ratio of men to women working in night shift at Call Centres?

(1) 9 : 11 (2) 7 : 5 (3) 8 : 13 (4) 5 : 9 (5) None of these

247. What is the approximate average number of females working in night shift in all the sectors together?

(1) 2227 (2) 4481 (3) 3326 (4) 2823 (5) 3927

248. What is the total number of men working in night shift in all the sectors together?

(1) 28297 (2) 25788 (3) 28678 (4) 26888 (5) 27552

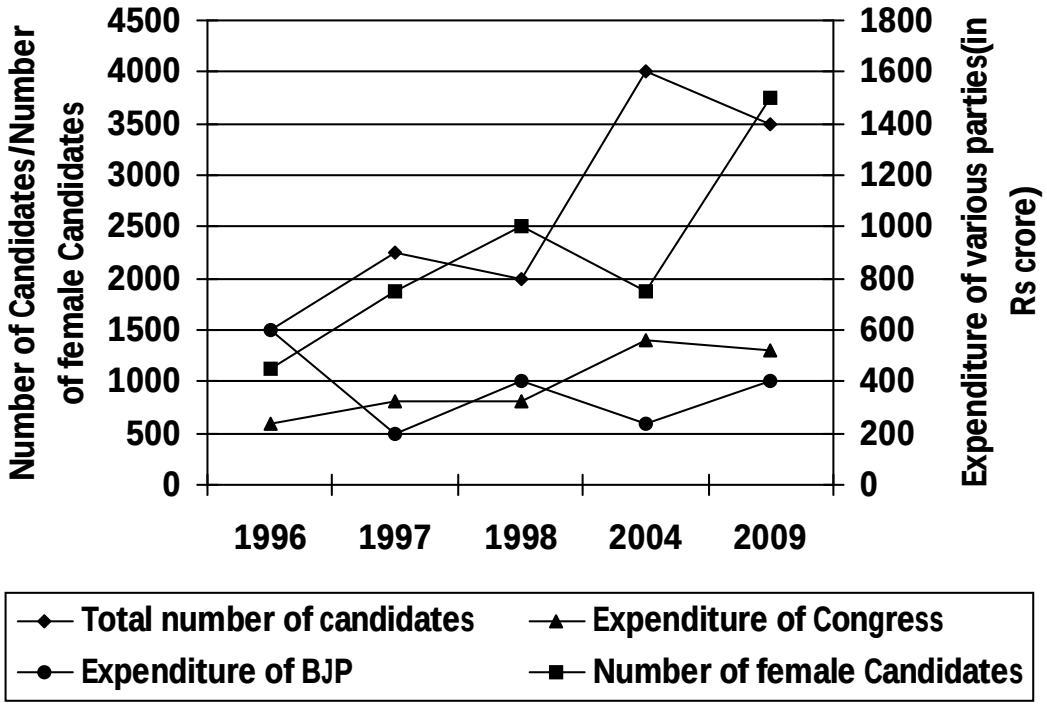
249. What is the difference between men working in Heavy Industries and women working in IT?

(1) 2738 (2) 3864 (3) 4508 (4) 3527 (5) None of these

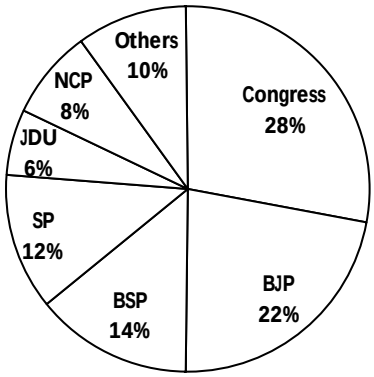
250. In which industry is the total number of female workers the maximum?

(1) IT (2) Sports (3) Finance (4) Sales (5) Call Centres

Directions (Q. 251-255): Study the following line graph and pie-chart carefully and answer the questions given below.



Percentage of votes received by various political parties in 2009 elections



Total number of voters = 120 crore

251. What is the ratio of the percentage increase in the expenditure of Congress from 1998 to 2009 to that of BJP over the same period?
(1) 77.5 : 100 (2) 5 : 8 (3) 8 : 5 (4) 73 : 90 (5) 84 : 95

252. In which year the percentage increase in the expenditure of the BJP is the maximum?
(1) 2004 (2) 2009 (3) 1999 (4) 2009 (5) 1998

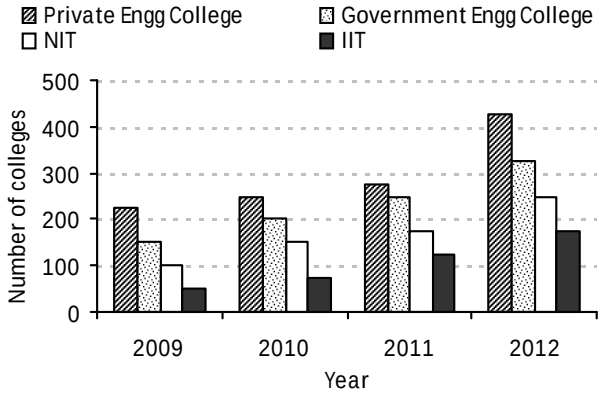
253. In which year is the difference between male and female candidates the maximum?
(1) 2004 (2) 1998 (3) 1996 (4) 2009 (5) 1999

254. What is the ratio of the increase in the number of male candidates from the year 1996 to 2009 to that of female candidates during the same period?
(1) 22 : 13 (2) 24 : 13 (3) 19 : 21 (4) 21 : 19 (5) 17 : 19

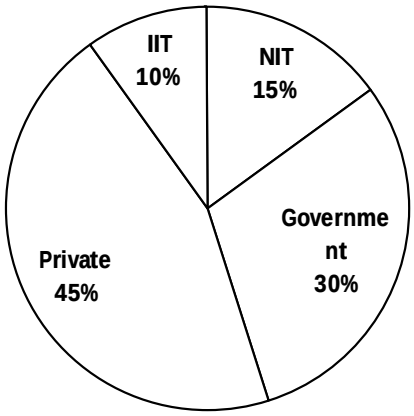
255. What is the difference between the votes received by (JDU + BJP + BSP) and (SP + Congress) in the year 2009?

(1) 24 lakh (2) 2.4crore (3) 240 crore (4) 2.41akh (5) 72 crore

Directions (Q. 256-260): Study the following table and pie-chart carefully and answer the questions given below.



The pie-chart shows the percentage of engineering students in various types of colleges in 2012.



Total number of students = 200000

256. What is the percentage increase in the total number of Engineering Colleges during 2009-12?
(1) 125.5% (2) 123.8% (3) 122.3% (4) 127.7% (5) 131.5%

257. What is ratio of the total number of IITs, NITs and Government Colleges in the year 2009 to the total number of IIT's in the year 2012?
(1) 11:7 (2) 12:9 (3) 12:7 (4) 11:9 (5) 13:5

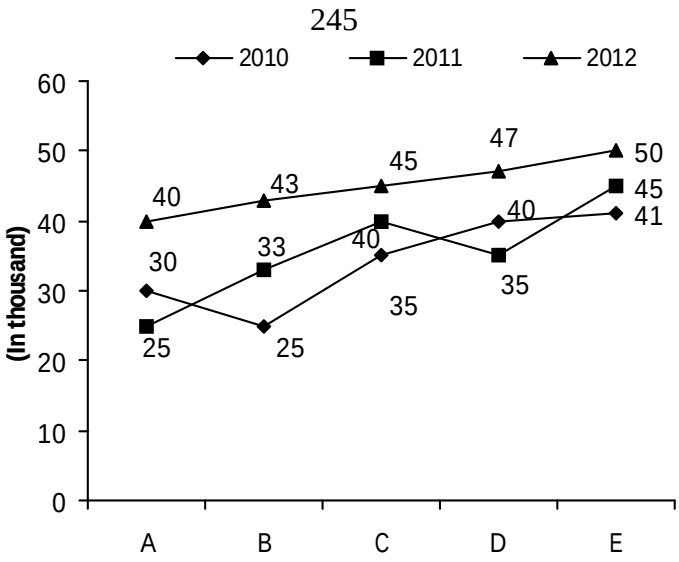
258. In which of the following years is the increase in the number of colleges the minimum in comparison to the previous year?
(1) 2009 (2) 2010 (3) 2011 (4) 2012 (5) None of these

259. The average of the number of students studying in IITs, NITs and Government Engineering Colleges in the year 2012 is what percentage more or less than the number of students studying in private colleges in the same year?
(1) 59.25% less (2) 61.27% more (3) 57.48% less (4) 63.37% more (5) 54.21% less

260. What is the percentage increase in the number of IITs and NITs from 2011 to 2012?
(1) 57.63% (2) 55.87% (3) 54.54% (4) 53.32% (5) 52.72%

Directions (Q.261-265): Study the following graph and table carefully and answer the given questions.

The following graph shows the circulation of five leading magazines from 2010 to 2012 (in thousand)



The following table shows the advertisement tariff per page (in ` thousand)

	2010	2011	2012
A	30	32.5	35
B	37.5	35	40
C	25	30	35
D	45	53	65
E	50	45	65

261. If Magazines B and E in the year 2010 and 2012 have fourteen and twelve pages advertisement respectively in one issue, then the advertisement cost charged by Magazine B in 2010 is by what per cent less than that by Magazine E in 2012?
(1) 69.32% (2) 23.69% (3) 32.69% (4) 44.32% (5) 13.32%

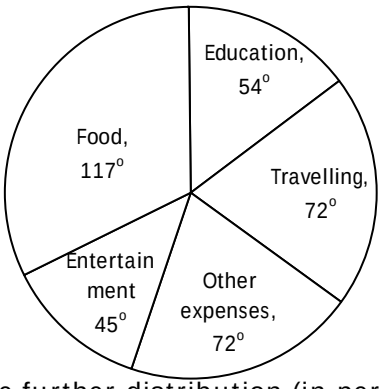
262. If the ratio of advertisement pages to non-advertisement pages of Magazine C is 3 : 4 in the year 2010 then how much money was charged by Magazine C for advertisement in the year 2010? (It is assumed that the total number of pages in Magazine is equal to the circulation of Magazine in that year).
(1) ` 37.5 crore (2) ` 21.5 crore (3) ` 41.5 crore (4) ` 18.5 crore (5) ` 35 crore

263. Which Magazine shows the maximum percentage increase in circulation over the years?
(1) A (2) B (3) C (4) D (5) E

264. What is the ratio of the percentage increase in tariff per page of Magazine D to that of Magazine A over the years?
(1) 7 : 9 (2) 3 : 5 (3) 5 : 3 (4) 3 : 8 (5) 8 : 3

265. The circulation of Magazine E in the year 2011 is what per cent of the average circulation of Magazine C over the given years?
(1) 112.5% (2) 12.5% (3) 81.75% (4) 74.65% (5) 83%

Directions (Q. 266-270): The following pie-chart shows the distribution of the monthly family budget of a person.



The following table shows the further distribution (in per cent) of the above mentioned items among the five members of a family - P (the person himself), W (his wife) and D_1, D_2 and D_3 (his three daughters). His monthly family budget is `96000.

	Food	Educat-ion	Travelling	Entertainment	Other Expenses
P	27	16	30	14	22
W	33	9	12	28	18
D_1	14	38	23	18	26
D_2	14	27	23	23	19
D_3	12	10	12	17	15

266. Find the difference (percentage)'. of the budgets between the average expense on Education and the average expense on Entertainment of the couple.
(1) 0.75% (2) 0.35% (3) 0.95% (4) 0.85% (5) None of these

267. What is the average expense of D (in `)?
(1) ` 4305.75 (2) ` 3281.75 (3) ` 4281.6 (4) ` 3800 (5) ` 5600

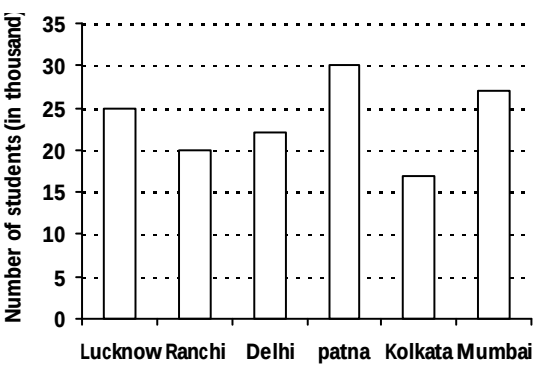
268. What is the maximum difference between the amounts spent on any two given items? (The amount of the two items may belong to the same person or different persons.)
(1) ` 8617 (2) ` 9616 (3) ` 3616 (4) ` 8616 (5) ` 9615

269. Find the increase in amount (in per cent) which D_2 enjoys for Entertainment as compared with D_3 for the same.
(1) $34\frac{5}{17}\%$ (2) $33\frac{8}{15}\%$ (3) $42\frac{7}{38}\%$ (4) $35\frac{4}{17}\%$ (5) None of these

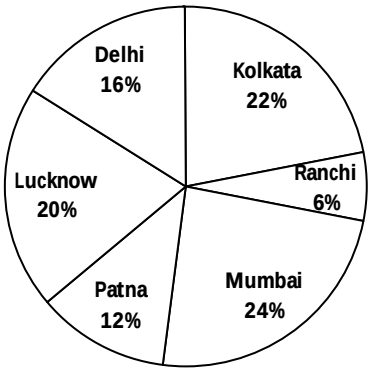
270. Find the difference (in `) between the average amount spent on all the items by the person and that by his wife.
(1) ` 633 (2) ` 336 (3) ` 342 (4) ` 356 (5) ` 726

Directions (Q. 271-275): Study the following bar-chart and pie-chart to answer the questions given below:

Number of candidates (in thousand) who appeared for the IBPS exams from 6 different cities



Percentage of female candidates from various cities among total female candidates.
Female candidates are 40% of the total candidates.



271. The average percentage marks obtained by the candidates from Kolkata was 40% of the maximum marks (Maximum marks - 200) and the same for Mumbai was 60%. Find the ratio of the average marks obtained by the candidates of these two cities.
(1) 3 : 2 (2) 2 : 3 (3) 3 : 4 (4) 4 : 3 (5) 5 : 6

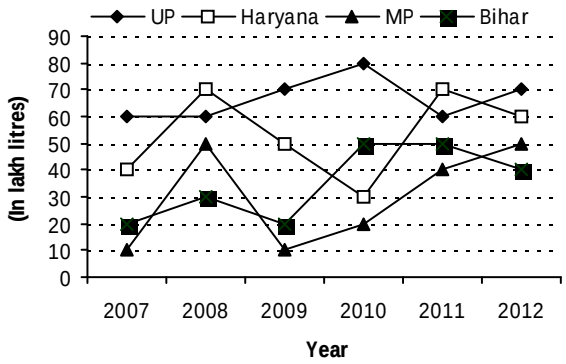
272. By what fraction was the number of candidates from Delhi who appeared for the exam less than that from Patna?
(1) $\frac{5}{9}$ (2) $\frac{2}{3}$ (3) $\frac{1}{4}$ (4) $\frac{3}{5}$ (5) $\frac{9}{11}$

273. What is the ratio of the total number of candidates appeared from Delhi, Mumbai and Kolkata to the total number of candidates appeared from Patna, Ranchi and Lucknow?
(1) 5 : 6 (2) 3 : 4 (3) 2 : 3 (4) 9 : 10 (5) 10 : 9

274. Female candidates from Mumbai are what per cent of the total number of candidates from Patna?
(1) 43.6% (2) 42.6% (3) 41.6% (4) 40.6% (5) 45.6%

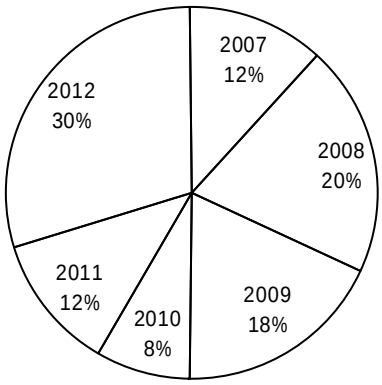
275. What is the difference between the total number of candidates from Lucknow and the total number of female candidates from Ranchi?
(1) 20380 (2) 22350 (3) 21580 (4) 16359 (5) 14480

Directions (Q. 276-280): Study the following graph carefully and answer the questions that follow: The line graph shows the production of m ilk in various states in different years.



The pie-chart shows the percentage of total production used to make milk product.

248



276. In which state is the production of milk maximum over six years?
(1) MP (2) UP (3) Haryana (4) Bihar (5) Both Bihar and MP

277. The milk used for milk products in 2009 is what per cent of the milk used for milk products in 2011?
(1) 210% (2) 102.27% (3) 110.14% (4) 125.98% (5) 97.05%

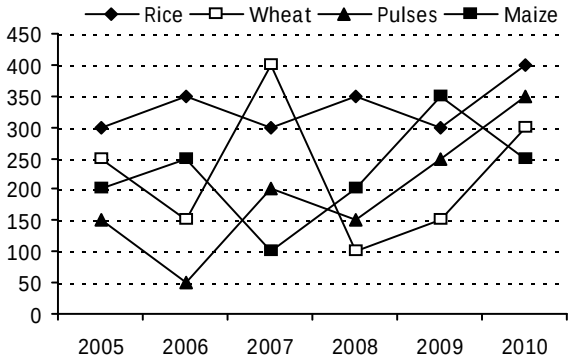
278. Total production of milk in 2012 is what per cent more than that in 2007?
(1) 64.56% (2) 72.84% (3) 89.29% (4) 56.15% (5) 69.23%

279. What is the ratio of milk used for milk products in 2010 to 2007?
(1) 3 : 7 (2) 14 : 15 (3) 2 : 5 (4) 12 : 13 (5) 7 : 11

280. What is the difference between the volume of milk used for milk products in 2012 and that in 2008?
(1) 24 lakh litres (2) 28 lakh litres (3) 32 lakh litres (4) 35 lakh litres (5) 34 lakh litres

Directions (Q. 31-35): Study the given chart and table carefully to answer the given questions:

The graph shows the production of Rice, Maize, Pulses and Wheat in six different years



Percentage of the total production used under various heads

Year	Export (%)	PDS Supply(%)	In open market (%)
2005	40%	12%	48%
2006	20%	18%	62%
2007	25%	16%	59%
2008	30%	14%	56%
2009	15%	20%	65%
2010	20%	22%	58%

281. In 2009 what is the difference between the amount of PDS supply and that used in export?
(1) 53000 tonnes (2) 56000 tonnes (3) 54500 tonnes (4) 52500 tonnes (5) 59000 tonnes

282. What is the ratio of the production of Pulses to that of Wheat over the six years?
(1) 25:27 (2) 23:25 (3) 23:28 (4) 23:27 (5) 22:27

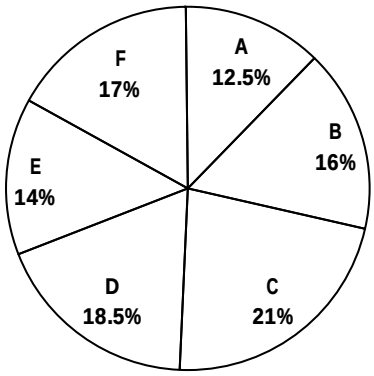
283. In which year is the production the minimum?
(1) 2006 and 2008 (2) 2009 (3) 2010
(4) 2007 and 2009 (5) 2005

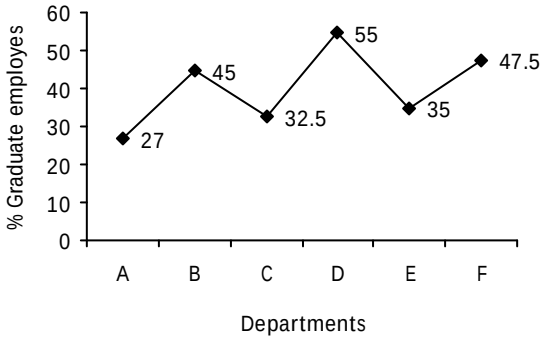
284. In which year is the quantity of export the maximum?
(1) 2005 (2) 2006 (3) 2007 (4) 2008 (5) 2009

285. In which year is the quantity of PDS supply the minimum?
(1) 2005 (2) 2006 (3) 2010 (4) 2009 (5) 2008

Directions (Q. 286-290): The given pie-chart shows the percentage distribution of employees among different departments of a Company and the line graph shows the percentage of graduate employees among them. Answer the following questions based on these graphs.

(Total number of employees in the Company is 8000)





286. What is the total number of graduate employees working in Department A?
(1) 540 (2) 270 (3) 135 (4) 1080 (5) 730

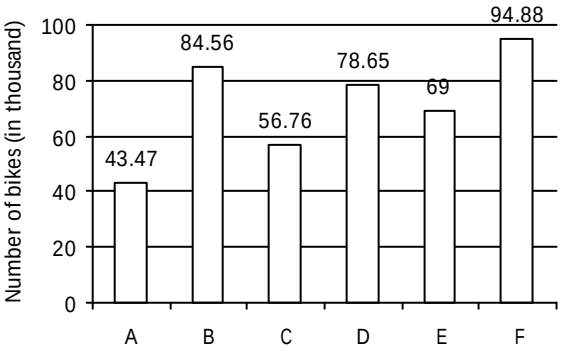
287. What is the total number of employees working in the Company who are non-graduates?
(1) 3780 (2) 3940 (3) 4360 (4) 4730 (5) 5730

288. The total number of graduate employees working in Department E is what per cent of the total number of employees of the Company?
(1) 7.2% (2) 6.4% (3) 4.9% (4) 4.3% (5) None of these,

289. The total number of graduate employees working in Department D is approximately what per cent more or less than the total number of non-graduate employees working in that department?
(1) 18% more (2) 22% more (3) 24% less (4) 27% less (5) 32% less

290. What is the average number of graduate employees working in the Company in all departments together?
(1) 535 (2) 545 (3) 555 (4) 565 (5) 575

Directions (Q.291-295): The following bar-graph shows the number of bikes produced by six companies during the period 2008 to 2013 and the table shows the ratio of sold to unsold bikes among them. Answer, the following questions based on these graphs.



Company	Ratio of sold to unsold bikes
A	7 : 2
B	5 : 2
C	5 : 1
D	9 : 2
E	3 : 2
F	5 :.3

291. What is the average number of bikes produced by all six companies together? (in thousand)
(1) 67.48 (2) 69.32 (3) 71.22 (4) 73.42 (5) None of these

292. What is the total number of bikes sold by Company D?
(1) 62850 (2) 64350 (3) 67250 (4) 69000 (5) None of these

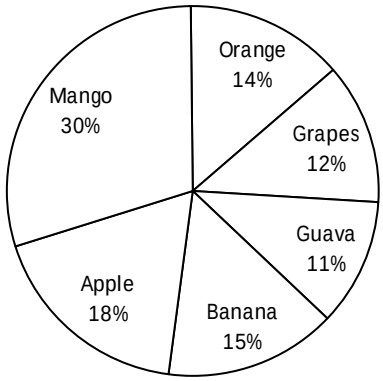
293. The total number of unsold bikes of Company A is approximately what per cent of the total number of unsold bikes of Company E?
(1) 35% (2) 45% (3) 55% (4) 65% (5) None of these

294. What is the difference between the total number of sold bikes and the total number of unsold bikes of Company F?
(1) 21480 (2) 22340 (3) 23720 (4) 24180 (5) None of these

295. The total number of bikes sold by all six companies is approximately what per cent of the total number of bikes produced by all these companies together?
(1) 84% (2) 72% (3) 67% (4) 63% (5) 56%

Directions (Q. 296-300): Study the following pie-chart and table carefully and answer the questions given below:

A survey was conducted on 6800 villagers staying in various villages having various favourite fruits. The pie-chart shows the percentage-wise distribution among the people.



The table shows the ratio of male to female

	Male	Female
Mango	3	5
Orange	3	4
Grapes	5	3
Guava	1	3
Banana	7	5
Apple	1	5

296. What is the numbers of females who like Mango the most?
(1) 1384 (2) 1380 (3) 1275 (4) 1470 (5) 1290

297. The number of females whose favourite fruit is Apple is by what per cent more than the number of females whose favourite fruit is Guava?
(1) 81.81% (2) 83.01% (3) 82.52% (4) 82.78% (5) 85.21%

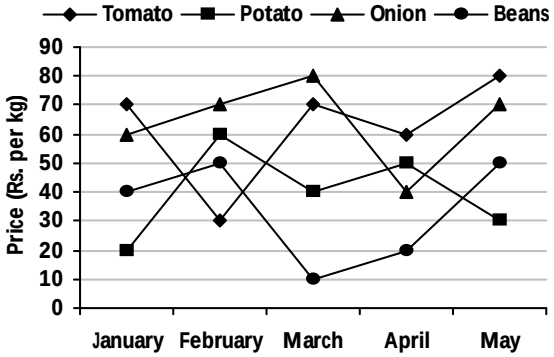
298. What is the ratio of the number of males whose favourite fruit is Grapes to that of the number of females whose favourite fruit is Orange?
(1) 268:179 (2) 255:272 (3) 274:341 (4) 265:465 (5) 284:514

299. What is the difference between the number of males whose favourite fruit is Mango and the number of females whose favourite fruit is Guava?
(1) 535 (2) 504 (3) 420 (4) 204 (5) 468

300. What is the ratio of the number of males whose favourite fruit is Orange to the number of females whose favourite fruit is Banana?
(1) 418:425 (2) 425:408 (3) 408:425 (4) 204:425 (5) 510:408

Directions (Q.301-305): Study the following graph and table carefully and answer the questions given below:

The line graph shows the price of different types of vegetables in various months in Agra.



The table show the ratio of the prices of vegetables in Agra to that in Mathura

	Agra	Mathura
Onion	3	4
Tomato	5	2
Potato	5	6
Beans	5	4

301. In which month the average price of vegetables in Agra is the maximum?
(1) January (2) February (3) March (4) April (5) May

302. The rate of Beans in Agra in May is what per cent of the rate of Onion in April in Mathura?

(1) 93.75% (2) 84.75% (3) 73.65% (4) 62.55% (5) 51.45%

303. What is the percentage increase in the price of Potato in Agra from January to May?

(1) 48% (2) 42% (3) 75% (4) 50% (5) 60%

304. What is the ratio of the rate of Tomato in Agra in January to the rate of Potato in Mathura in February?

(1) 34:31 (2) 32:37 (3) 35:36 (4) 31:36 (5) 29:25

305. Which vegetable has the maximum average price during five months in Agra?

(1) Tomato (2) Onion (3) Potato
(4) Bean (5) Can't be determined

SHORT ANSWER

1. (3)	2. (3)	3. (1)	4. (2)	5. (2)	6. (3)	7. (5)	8. (3)
9. (2)	10. (4)	11. (1)	12. (3)	13. (4)	14. (2)	15. (3)	16. (3)
17. (1)	18. (2)	19. (4)	20. (2)	21. (3)	22. (2)	23. (5)	24. (4)
25. (1)	26. (2)	27. (1)	28. (5)	29. (4)	30. (4)	31. (1)	32. (5)
33. (3)	34. (2)	35. (3)	36. (4)	37. (3)	38. (5)	39. (5)	40. (4)
41. (5)	42. (4)	43. (2)	44. (2)	45. (3)	46. (3)	47. (4)	48. (5)
49. (3)	50. (3)	51. (4)	52. (3)	53. (5)	54. (5)	55. (2)	56. (3)
57. (3)	58. (4)	59. (5)	60. (1)	61. (1)	62. (2)	63. (2)	64. (5)
65. (5)	66. (2)	67. (5)	68. (4)	69. (2)	70. (4)	71. (2)	72. (5)
73. (3)	74. (5)	75. (5)	76. (4)	77. (4)	78. (2)	79. (2)	80. (3)
81. (3)	82. (5)	83. (1)	84. (4)	85. (4)	86. (3)	87. (4)	88. (2)
89. (1)	90. (5)	91. (4)	92. (3)	93. (1)	94. (5)	95. (2)	96. (2)
97. (1)	98. (5)	99. (5)	100. (2)	101. (5)	102. (1)	103. (2)	104. (4)
105. (3)	106. (4)	107. (3)	108. (2)	109. (5)	110. (4)	111. (5)	112. (3)
113. (1)	114. (2)	115. (3)	116. (2)	117. (3)	118. (5)	119. (3)	120. (3)
121. (3)	122. (2)	123. (1)	124. (4)	125. (2)	126. (2)	127. (3)	128. (5)
129. (4)	130. (1)	131. (3)	132. (4)	133. (2)	134. (1)	135. (2)	136. (2)
137. (2)	138. (1)	139. (4)	140. (5)	141. (5)	142. (1)	143. (2)	144. (3)
145. (1)	146. (1)	147. (2)	148. (3)	149. (5)	150. (4)	151. (3)	152. (5)
153. (1)	154. (3)	155. (4)	156. (3)	157. (5)	158. (3)	159. (3)	160. (5)
161. (2)	162. (5)	163. (4)	164. (3)	165. (1)	166. (4)	167. (3)	168. (3)
169. (4)	170. (1)	171. (3)	172. (4)	173. (2)	174. (5)	175. (1)	176. (2)
177. (4)	178. (3)	179. (5)	180. (4)	181. (5)	182. (1)	183. (5)	184. (3)
185. (5)	186. (2)	187. (2)	188. (5)	189. (4)	190. (1)	191. (3)	192. (2)
193. (1)	194. (3)	195. (4)	196. (2)	197. (3)	198. (4)	199. (2)	200. (2)
201. (2)	202. (4)	203. (3)	204. (1)	205. (2)	206. (5)	207. (4)	208. (5)
209. (3)	210. (4)	211. (2)	212. (3)	213. (4)	214. (5)	215. (5)	216. (4)
217. (4)	218. (1)	219. (4)	220. (5)	221. (1)	222. (5)	223. (2)	224. (4)
225. (1)	226. (3)	227. (4)	228. (2)	229. (5)	230. (5)	231. (3)	232. (1)
233. (2)	234. (1)	235. (2)	236. (2)	237. (1)	238. (4)	239. (5)	240. (2)
241. (5)	242. (2)	243. (2)	244. (4)	245. (3)	246. (1)	247. (1)	248. (4)
249. (3)	250. (5)	251. (2)	252. (3)	253. (1)	254. (3)	255. (2)	256. (2)
257. (3)	258. (2)	259. (1)	260. (3)	261. (3)	262. (1)	263. (2)	264. (5)
265. (1)	266. (1)	267. (3)	268. (4)	269. (5)	270. (2)	271. (2)	272. (3)
273. (4)	274. (5)	275. (3)	276. (2)	277. (2)	278. (5)	279. (4)	280. (1)
281. (4)	282. (4)	283. (1)	284. (1)	285. (1)	286. (2)	287. (4)	288. (3)
289. (2)	290. (2)	291. (3)	292. (2)	293. (1)	294. (3)	295. (2)	296. (3)
297. (1)	298. (2)	299. (4)	300. (3)	301. (5)	302. (1)	303. (4)	304. (3)
305. (2)							

ANSWERS WITH EXPLANATION

1. 3; $\text{Sale}M_1 = 48000 \times 0.65 = 31200$
$\text{Sale}M_2 = 32000 \times 0.54 = 17280$
$\therefore$ Total = 31200 + 17280 = 48480

2. 3; In 2006, unsoldM_2
$= 60000 \times \frac{(100-57)}{100} = 25800$
In 2007, production $M_2 = 36000$
$\therefore$ Ratio = $\frac{25800}{36000} = \frac{43}{60}$

3. 1; $2006 \Rightarrow \frac{54-48}{48} \times 100 = 12.5\%$
$2007 \Rightarrow \frac{40-54}{54} \times 100 = 25.9\%$ (fall)
$2008 \Rightarrow \frac{48-40}{40} \times 100 = 20\%$
$2009 \Rightarrow \frac{76-48}{48} \times 100 = 58.33\%$
$2010 = \frac{51-76}{76} \times 100 = 32.89\%$ (fall)

4. 2; In 2007, $\text{Sale}_{M2} = 36000 \times \frac{72}{100} = 25920$
In 2008, $\text{Sale}_{M2} = 54000 \times \frac{62}{100} = 33480$
$\therefore$ % rise $= \frac{33480-25920}{25920} \times 100$
$= \frac{756000}{25920} = 29.16 \approx 29\%$

5. 2; $\text{Total}_{M1} = (48 \times 0.65 + 54 \times 0.52 + 40 \times 0.67 + 48 \times 0.56 + 76 \times 0.78 + 51 \times 0.48)$
= (31.2 + 28.08 + 26.8 + 26.88 + 59.28 + 24.48) thousand
= 196.72 thousand = 196720

6. 3; $2005 \Rightarrow \frac{16 \times 100}{56} = 28.57\%$,
$2006 \Rightarrow \frac{24 \times 100}{72} = 33.33\%$ (fall)
$2007 \Rightarrow \frac{12 \times 100}{48} = 25\%$
$2008 \Rightarrow \frac{20 \times 100}{60} = 33.33\%$
$2009 \Rightarrow \frac{30 \times 100}{80} = 37.5\%$

7. 5; $\text{Sale}_{2004} = 64000 \times \frac{55}{100} = 35200$
$\text{Sale}_{2008} = 70000 \times \frac{65}{100} = 45500$
$\therefore$ Total = 35200 + 45500 = 80700

8. 3; $\text{Sale}_{2009} = 55000 \times \frac{80}{100} = 44000$
$\text{Sale}_{2010} = 84000 \times \frac{75}{100} = 63000$
Required%
$= \frac{63000 - 44000}{44000} \times 100 = 43.18\%$

9. 2; $A_{2006+2007} = 48 \times \frac{80}{100} + 60 \times \frac{75}{100}$
= 38.4 + 45 = 83.4 thousand
$B_{2004+2005} = 64 \times \frac{55}{100} + 60 \times \frac{50}{100}$
= 35.2 + 30 = 65.2 thousand
$\therefore$ Difference = 83.4 - 65.2 = 18.2 thousand
= 18200

10. 4; $\text{Unsold}_A = 80 \times \frac{(100-55)}{100} = 36$ thousand
$\text{Unsold}_B = 70 \times \frac{(100-65)}{100} = 24.5$ thousand
$\therefore$ Required % $= \frac{36-24.5}{24.5} \times 100 = \frac{1150}{24.5}$
$= 46.938 \approx 47\%$

11. 1; $P_{2011} = 2.8 \times \frac{19}{100} \times \frac{(100+14)}{100} \times$
$\frac{(100+12)}{100} = \frac{2.8 \times 19 \times 114 \times 112}{100 \times 100 \times 100}$
= 0.6792576 crore = 6792576

12. 3; $P_{2009} = 2.8 \times \frac{23}{100} = 0.644$ crore

$\therefore P_{2010} = 0.644 \times \frac{(100+11)}{100} = 0.71484 \text{crore}$

$\therefore P_{2011} = 0.71484 \times \frac{(100+9)}{100}$

$= 0.7791756$ crore

$\therefore$ Diff = 7791756 - 7148400 = 643356

13. 4; Let the population of City C in the year 2009 be x.

$\therefore C_{2011} = x \times \frac{112}{100} \times \frac{108}{100} = 1.2096x$

$\therefore$ Reqd % $= \frac{(1.2096-1)x}{x} \times 100$

$= 0.2096 \times 100 = 20.96\%$

14. 2; $A_{2011} = 28000000 \times \frac{22}{100} \times \frac{107}{100} \times \frac{108.5}{100}$

$= 28 \times 22 \times 107 \times 108.5 = 7151452$

$E_{2010} = 28000000 \times \frac{11}{100} \times \frac{113}{100}$

$= 2800 \times 11 \times 113 = 3480400$

$\therefore$ Sum = 7151452 + 3480400 = 10631852

15. 3; $C_{2010} = 2.8 \times \frac{18}{100} \times \frac{112}{100} = 0.56448$ crore

$F_{2010} = 2.8 \times \frac{19}{100} \times \frac{114}{100} = 0.60648$ crore

$\therefore$ Avg $= \frac{0.56448 + 0.60648}{2} = \frac{1.17096}{2}$

$= 0.58548$ crore

16. 3; Total girls

$= 5500 \times \frac{47}{100} + \frac{5000 \times 36}{100} + \frac{7000 \times 52}{100} +$

$\frac{7800 \times 57}{100} + \frac{8400 \times 44}{100} + \frac{8500 \times 45}{100}$

$= 2585 + 1800 + 3640 + 4446 + 3696 + 3825$

$= 19992$

$\therefore$ Average $= \frac{19992}{6} = 3332$

17. 1; $G_F = 7200 \times \frac{55}{100} = 3960$

$G_B = 5000 \times \frac{36}{100} = 1800$

Reqd % $= \frac{3960}{1800} \times 100 = 220\%$

18. 2; Total boys = 27386

Total students = 50000

$\therefore$ Reqd % $= \frac{27386}{50000} \times 100 = 54.772$

19. 4; $\text{Girls}_{2007\text{-}2008}$

$= 7800 \times \frac{57}{100} + 8000 \times \frac{51}{100} + 7000 \times \frac{43}{100}$

Total girls = 4446 + 4080 + 3010 = 11536

No. of boys = (7800 + 8000 + 7000) - 11536

= 22800- 11536 = 11264

$\therefore$ Diff = 11536- 11264 = 272

20. 2;

Number of boys passed		
States	2008	2009
A	3968	4640
B	3300	5292
C	3900	5400
D	3920	3990
E	3825	3840
F	3240	4224

A $= \frac{(4640-3968)}{3968} \times 100 = 16.93\%$

B $= \frac{(5292-3300)}{3300} \times 100 = 60.36\%$

C $= \frac{(5400-3900)}{3900} \times 100 = 38.46\%$

D $= \frac{(3990-3920)}{3920} \times 100 = 1.78\%$

E $= \frac{(3840-3825)}{3825} \times 100 = 0.39\%$

F $= \frac{(4224-3240)}{3240} \times 100 = 30.37\%$

21. 3; Total unsold tyres = 40 × 0.4 + 52 × 0.25 + 60 × 0.5 + 70 × 0.2 + 72 × 0.6 + 90 × 0.4

= 152200

22. 2; $B_{sold} = 65 \times .8 = 52$,

$A_{unsold} = 52 \times 0.25 = 13$

$\therefore$ Ratio $= \frac{52}{13} = \frac{4}{1}$ ie 4 : 1

23. 5; Total tyres produced
= 45 + 48 + 64 + 62 + 65 + 80 = 364 thousand
Total tyres sold = 45 × 0.5 + 48 × 0.4 + 64 × 0.75 + 62 × 0.6 + 65 × 0.8 + 80 × 0.5
= 218.9 thousand
∴ Total unsold tyres = 364 - 218.9
= 145.1 thousand
∴ Difference = 218.9 - 145.1
= 73.8 thousand

24. 4;
$Sold_A = 52 \times 0.75 = 39$ thousand,
$Sold_B = 80 \times 0.5 = 40$ thousand
$\therefore$ Reqd % $= \frac{39}{40} \times 100 = 97.5\%$

25. 1; $Sold_A = 70 \times .8 = 56$ thousand,
$Unsold_B = 64 \times 0.25 = 16$ thousand
% difference $= \frac{56-16}{16} \times 100 = \frac{4000}{16}$
$= 250\%$

26. 2; $Total_D = 2400000 \times \frac{20}{100} = 480000$
$Male_D = \frac{480000}{5} \times 2 = 192000$

27. 1; $Total_C = 2400000 \times \frac{16}{100} = 384000$
Non-adults $= 384000 \times \frac{28}{100} = 107520$

28. 5

29. 4; $Total_B = 2400000 \times \frac{18}{100} = 432000$
$Male_B = \frac{432000}{9} \times 5 = 240000$
$Female_B = 432000 - 240000 = 192000$
∴ Difference = 240000 - 192000 = 48000

30. 4, $Adult_E = \frac{75}{100}\left(2400000 \times \frac{10}{100}\right)$
$= 180000$
$Male_D = \frac{2}{5}\left(2400000 \times \frac{20}{100}\right) = 192000$
$\therefore$ Reqd percentage $= \frac{180000}{192000} \times 100$
$= 93.75\%$

31. 1; $Male_{(A+B)}$
$= 30000\left\{\frac{21}{100} \times \frac{11}{15} + \frac{18}{100} \times \frac{11}{18}\right\} = 300(15.4 + 11)$
$= 300 \times 26.4 = 7920$

32. 5; $Male_D = 30000 \times \frac{12}{100} \times \frac{11}{24}$
$Female_c = 30000 \times \frac{17}{100} \times \frac{5}{17}$
$\therefore$ Ratio $\frac{11}{10} = 11 : 10$

33. 3; $Male_B = 30000 \times \frac{18}{100} \times \frac{11}{18} = 3300$
$Female_E = 30000 \times \frac{22}{100} \times \frac{4}{11} = 2400$
$\therefore$ Reqd % $= \frac{3300-2400}{2400} \times 100 = \frac{900}{24} = 37.5\%$

34. 2; Total Females $= \frac{30000}{100} \times$
$\left[21 \times \frac{4}{15} + 18 \times \frac{7}{18} + 17 \times \frac{5}{17} + 12 \times \frac{13}{24} + 22 \times \frac{4}{11} + 10 \times \frac{11}{30}\right]$
$= 300\left[5.6 + 7 + 5 + 6.5 + 8 + \frac{11}{3}\right]$
$= 300\left(32.1 + \frac{11}{3}\right)$
$100 \times 107.3 = 10730$
$\therefore$ Reqd% $= \frac{10730}{30000} \times 100 = 35.76 \approx 36\%$

35. 3; $D_{Total} = 30000 \times \frac{12}{100} = 3600$
$A_{Female} = 30000 \times \frac{21}{100} \times \frac{4}{15} = 1680$
$\therefore$ Required fraction $= \frac{1680}{3600} = \frac{7}{15}$

36. 4; Total Males $= \frac{9600000}{10000}$ [16 × 52 + 15 × 57 + 24 × 51 + 9 × 48 + 7 × 47 + 17 × 53 + 12 × 50]
= 960 × [832 + 855 + 1224 + 432 + 329 + 901 + 600]
= 960 × 5173 = 4966080
$\therefore$ Average $= \frac{4966080}{7} = 709440$

37. 3;
$Illiterate_A = 9600000 \times \frac{16}{100} \times \frac{64}{100} = 983040$

$\text{Literate}_A = 9600000 \times \frac{16}{100} \times \frac{36}{100} = 552960$

$\therefore$ Difference - 983040 - 552960 = 430080

38. 5; The exact number can't be determined because no relationship between literacy and gender is given.

39. 5; $\text{Difference}_A = 9600000 \times \frac{16}{100} \times \frac{(52-48)}{100}$

$= 960 \times 16 \times 4 = 61440$

Similarly,

$\therefore \text{Difference}_B = 960 \times 15 \times 14 = 201600$

$\therefore \text{Difference}_C = 960 \times 24 \times 2 = 46080$

$\therefore \text{Difference}_D = 960 \times 9 \times 4 = 34560$

$\therefore \text{Difference}_E = 960 \times 7 \times 6 = 40320$

$\therefore \text{Difference}_F = 960 \times 17 \times 6 = 97920$

$\therefore \text{Difference}_G = 960 \times 12 \times 0 = 0$

40. 4; $\text{Literate}_c = 9600000 \times \frac{24}{100} \times \frac{(100-48)}{100}$

$\therefore 960 \times 24 \times 52 = 11980$

$\text{Illiterate}_G = 9600000 \times \frac{12}{100} \times \frac{52}{100}$

$\therefore 960 \times 12 \times 52 = 5990$

Required per cent $= \frac{11980}{5990} \times 100 = 200\%$

41. 5; $\therefore$ Reqd % $= \frac{17000-9000}{9000} \times 100 = 88\frac{8}{9}\%$

42. 4; $A_{2008} = 20000 \times \frac{81}{100} = 16200$

$B_{2006} = 12000 \times \frac{75}{100} = 9000$

$\therefore$ Reqd % $= \frac{16200}{9000} \times 100 = 180\%$

43. 2; Unsold cycle = 15000 × 0.36
+ 12000 × 0.25 + 15000 × 0.28
+ 18200 × 0.40 + 15000 × 0.16
+ 18000 × 0.08 = 5400 + 3000
+ 4200 + 7280 + 2400 + 1440 = 23720

44. 2; $B_{2007} = \frac{15000-12000}{12000} \times 100 = 25\%$

$B_{2008} = \frac{18200-15000}{15000} \times 100 = 21.3\%$

$B_{2010} = \frac{18000-15000}{15000} \times 100 = 20\%$

45. 3; Difference between sold cycles (A - B) in
2005 → 9600 - 8750 = 850
2006 → 9000 - 5940 = 3060
2007 → 13260 - 10800 = 2460
2008 → 16200 - 10920 = 5280
2009 → 12600 - 9100 = 3500
2010 → 16560 - 12480 = 4080

46. 3; Males in $D_1 = \frac{9000 \times 18}{100} \times \frac{7}{20} = 567$

Similarly, $D_2 = 609$, $D_3 = 488$, $D_4 = 726$
$D_5 = 351$ $D_6 = 969$ $D_7 = 240$
$\therefore$ Total number of males = 3950

47. 4; Total employees in D_3

$= 9000 \times \frac{12.2}{100} = 1098$

Females in $D_3 = 1098 \times \frac{5}{9} = 610$

$\therefore$ Reqd % $= \frac{610}{1098} \times 100 = 55.55\%$

48. 5; Ratio of males to females in Department D_7
= M : F = 8 : 13

$\therefore$ Reqd % $= \frac{(13-8)}{8} \times 100 = 62.5\%$

49. 3; $D_1 = 9000 \times \frac{18}{100} = 1620$

Male : Female = 7 : 13

$\therefore$ Difference $= 1620 \times \frac{(13-7)}{20} = 486$

Similarly, $D_2 = 1305 \times \frac{1}{15} = 87$

$D_3 = 1098 \times \frac{1}{9} = 122$

$D_4 = 1485 \times \frac{1}{45} = 33$

$D_5 = 810 \times \frac{4}{30} = 108$

$D_6 = 2052 \times \frac{2}{36} = 114$

$D_7 = 630 \times \frac{5}{21} = 150$

50. 3; Females in $D_1 = \frac{9000 \times 18}{100} \times \frac{13}{20} = 1053$

Similarly, $D_2 = 696$, $D_3 = 610$ $D_4 = 759$,
$D_5 = 459$, $D_6 = 1083$, $D_7 = 390$
$\therefore$ Total females = 1053 + 696 + 610 + 759 + 459 + 1083 + 390 = 5050

$\therefore$ Reqd % $= \frac{5050}{9000} \times 100 = 56.11\%$

(51-55):

Speed of Vehicle A on 1st day

$= \frac{832}{16} = 52$ kmph

Speed of Vehicle A on 2nd day

$= \frac{864}{16} = 54$ kmph

Speed of Vehicle B on 1 st day

$= \frac{516}{12} = 43$ kmph

Speed of Vehicle B on 2nd day

$= \frac{774}{18} = 43$ kmph

Speed of Vehicle C on 1st day

$= \frac{693}{11} = 63$ kmph

Speed of Vehicle C on 2nd day

$= \frac{810}{18} = 45$ kmph

Speed of Vehicle D on 1st day

$= \frac{552}{12} = 46$ kmph

Speed of Vehicle D on 2nd day

$= \frac{765}{15} = 51$ kmph

Speed of Vehicle E on 1st day

$= \frac{935}{17} = 55$ kmph

Speed of Vehicle E on 2nd day

$= \frac{546}{14} = 39$ kmph

Speed of Vehicle F on 1st day

$= \frac{703}{19} = 37$ kmph

Speed of Vehicle F on 2nd day

$= \frac{636}{12} = 53$ kmph

51. 4; The speed of Vehicle B on both the days is 43 kmph

52. 3; Speed of A on 1st day = 52 kmph
Speed of C on 1st day = 63 kmph
$\therefore$ Difference = 63 - 52 = 11 kmph

53. 5, Speed of Vehicle C on 2nd day = 45 kmph

$= 45 \times \frac{5}{18} = 2.5 \times 5 = 12.5 m/s$

54. 5; Reqd % = $\frac{636}{703} \times 100 = 90.46 \approx 90\%$

55. 2; Reqd Ratio= $\frac{\text{Speed of Vehicle D on day 2}}{\text{Speed of Vehicle E and on day 2}}$

$= \frac{51}{39} = \frac{17}{13} = 17:13$

56. 3; Total number of mobiles sold in the month of July = $45000 \times \frac{17}{100} = 7650$

Mobile phones sold by Company B in the month of July = $7650 \times \frac{7}{15} = 3570$

Total number of mobile phones sold in the month of December = $45000 \times \frac{16}{100} = 7200$

Mobile phones sold by Company B in the month of December = $7200 \times \frac{9}{16} = 4050$

$\therefore$ Reqd ratio = $\frac{3570}{4050} = \frac{357}{405} = \frac{119}{135} = 119:135$

57. 3; Number of mobile phones sold in the month of November

$= 45000 \times \frac{12}{100} = 5400$

Number of mobile phones sold by Company A in the month of November = $5400 \times \frac{7}{15} = 2520$

$\therefore$ Number of mobile phones without discount in the month of November by Company A

$= 2520 \times \frac{65}{100} = 2520 \times 0.65 = 1638$

58. 4; Number of mobile phones sold in the month of October = $45000 \times \frac{8}{100} = 3600$

$\therefore$ Number of mobile phones sold by B in the month of October = $3600 \times \frac{5}{12} = 1500$

$\therefore$ Total profit earned by Company B in the month of October = $1500 \times 433 = 649500$

59. 5; Number of mobile phones sold in the month of July = $45000 \times \frac{17}{100} = 7650$

Number of mobile phones sold by Company A in the month of July = $7650 \times \frac{8}{15} = 4080$

Number of mobile phones sold in the month of December

$= 45000 \times \frac{16}{100} = 7200$

Number of mobile phones sold by Company

A in the month of December = $7200 \times \frac{7}{16}$
= 3150
∴ Required per cent
= $\frac{4080}{3150} \times 100 = 129.52 \approx 130$

60. 1; Number of mobile phones sold in the month of August = $\frac{22}{100} \times 45000 = 9900$
Number of mobile phones sold in the month of September = $\frac{25}{100} \times 45000 = \frac{1}{4} \times 45000 = 11250$
Number of mobile phones sold by Company B in the month of August = $9900 \times \frac{5}{9} = 5500$
Number of mobile phones sold by Company B in September = $11250 \times \frac{2}{5} = 4500$
Total number of mobile phones sold in August and September by Company B
= 5500 + 4500 = 10000

Quicker Method:
Total number of mobile phones sold by Company B in August and September
$= \left(\frac{22}{100} \times 45000 \times \frac{5}{9} + \frac{25}{100} \times 45000 \times \frac{2}{5}\right) = 10000$

61. 1; Total Females = 64000 × 0.75 + 50000 × 0.72 + 72000 × 0.5 + 80000 × 0.65 + 72000 × 0.48 + 25000 × 0.9
= 48000 + 36000 + 36000 + 52000 + 34560 + 22500 = 229060

62. 2; $Male_B = 48000 \times 0.70 = 33600$
$Male_C = 60000 \times 0.56 = 33600$

63. 2; Total Males = 70 + 48 + 60 + 56 + 75 + 40 = 349 thousand
Total Male voters = 70 × 0.8 + 48 × 0.7 + 60 × 0.56 + 56 × 0.7 + 75 × 0.45 + 40 × 0.75
= 56 + 33.6 + 33.6 + 39.2 + 33.75 + 30
= 226.15 thousand
Difference = 349 - 226.15
= 122.85 thousand

64. 5; Female (A + C) = 48000 + 36000 = 84000
$Male_A = 56000$
∴ Required per cent
= $\frac{84000}{56000} \times 100 = 150\%$

65. 5; $Male_F = 40000 \times \frac{75}{100} = 30000$
$Female_r = 25000 \times \frac{90}{100} = 22500$
∴ Required per cent
= $\frac{30000 - 22500}{30000} \times 100 = 25\%$

66. 2; Males = 75 × 0.46 + 85 × 0.50 + 60 × 0.6 + 90 × 0.4 + 50 × 0.45 + 70 × 0.55 = 34.5 + 42.5 + 36 + 36 + 22.5 + 38.5 = 210
∴ Average = $\frac{210}{6}$ = 35 lakh

67. 5; Population below poverty line
= 45 + 34 + 27 + 45 + 35 + 42 = 228
Population above poverty line = 30 + 51 + 33 + 45 + 15 + 28 = 202
Difference = 228 - 202 = 26 lakh

68. 4; Female (C + D) = 60 × 0.4 + 90 × 0.6
= 24 + 54 = 78 lakh
Total population of city (E + F) = 50 + 70 = 120 lakh
∴ Required per cent = $\frac{78}{120} \times 100 = 65\%$

69. 2; Population below poverty line in City F
= 70 × 0.6 = 42 lakh
Population above poverty line in City F
= 70 - 42 = 28 lakh
New population below poverty line in city F
= 42 - 42 × $\frac{50}{100}$ = 211akh
New population above poverty line in city F
= 28 + 28 × $\frac{100}{100}$ = 561akh
∴ Ratio = $\frac{21}{56} = \frac{3}{8} = 3 : 8$

70. 4; $Female_A = 75 \times 0.54 = 40.5$ lakhs
$Male_E = 50 \times 0.45 = 22.5$ lakhs
∴ Required per cent
= $\frac{40.5 - 22.5}{22.5} \times 100 = \frac{1800}{22.5} = 80\%$

71. 2; Total FDI in Bihar = Rs 780 crore
FDI in Power sector in Bihar
= 15.5% of 780
= 15.5 × 7.8 = Rs 120.9 crore
Now, total FDI in AP = Rs 972 crore
And the FDI in Road sector in AP = 13.2% of 972 = 13.2 × 9.72 = Rs 128.304 crore
∴ Reqd % = $\frac{120.9}{128.304} \times 100 = \frac{12090000}{128304}$
= 94.229 ≈ 94%

72. 5; Total FDI in Assam = Rs. 365 crore
And the FDI in entertainment sector in Assam
= 9.5% of 365 = 9.5 × 3.65 = Rs 34 . 675 crore
Now, the FDI in telecom sector in Delhi = 10.5% if 415 = 10.5 × 4.15 = Rs 43.575 crore

$$\% \text{ loss} = \frac{(43.575 - 34.675)}{43.575} \times 100$$

$$= \frac{8.9}{43.575} \times 100 = 20.4245 = 20.43\%$$

73. 3; Total investment of all these states
= Rs (780 + 890 + 985 + 345 + 365 + 415 + 972) = Rs 4752
∴ Total investment in Others

$$= 4752 \times \frac{23.7}{100} = 47.52 \times 23.7$$

= Rs 1126.224 crore

74. 5; Investment in IT sector in UP
= 27.6% of 985 = 27.6 × 9.85 = 271.86
Now the total investment in Road sector in MP = 13.2% of 890 = Rs 117.48 crore
Required ratio = 271.86 : 117.48
= 13593 : 5874

75. 5; (Bihar : UP)
= (780 × 27.6%) : (985 × 27.6%)
(Bihar : UP) = 156 : 197
(MP : Assam) = (890 × 27.6%) : (365 × 27.6%)
= 198 : 73
(Sikkim : Delhi) = (345 : 27.6%) : (415 × 27.6%) = 69 : 83
(AP : Bihar) = (972 × 27.6%): (780 × 27.6%) = 81.65
And (UP : Sikkim) = (985 × 27.6%) : (345 × 27.6%) = 197 : 69

76. 4; Total export of Textile in the given period = 35% of (40 + 33 + 34 + 32 + 38 + 39) = 35% of 216 = 75.6 billion
Average export of Textile

$$= \frac{75.6}{6} = 12.6 \text{ billions}$$

77. 4; There is no data available for previous year, so we can't find the solution.

78. 2; Export of Jewellery in July = 14% of 38
= 5.32 billion
Now, export of Cosmetics in April
= 13% of 33 = 4.29 billion

$$\% \text{ increase} = \frac{(5.32 - 4.29)}{4.29} \times 100$$

$$= \frac{1.03 \times 100}{4.29} \approx 24.009 = 24\%$$

79. 2; Export of Others in March
= 8% of 40 = 3.2 billion
Now, Export of Others in April
= 8% of 33 = 2.64 billion

$$\text{Number of times} = \frac{3.2}{2.64} = 1.212 \text{ times}$$

80. 3; Export of Garments and Textile in August
= 65% of 39 = 25.35 billion
Total export in the other three sectors
= 35% of 39 = 13.65 billion

$$\therefore \text{Required per cent} = \frac{25.35}{13.65} \times 100$$

$$= 185.714 \approx 186\%$$

81. 3; $\text{Females } E_4 = 6500 \times \frac{15}{100} \times \frac{(100 - 48)}{100}$

= 6500 × 0.15 × 0.52 = 507

82. 5; The required average

$$= \frac{9000}{100 \times 100} \frac{(18 \times 45 + 15 \times 48 + 24 \times 55 + 20 \times 52 + 13 \times 60 + 10 \times 57)}{6}$$

$$= \frac{9000 \times (810 + 720 + 1320 + 1040 + 780 + 570)}{100 \times 100 \times 6}$$

$$= \frac{9000 \times 5240}{100 \times 100 \times 6} = \frac{5240 \times 9}{6}$$

$$= \frac{4716}{6} = 786$$

83. 1; Total males = 6500(0.22 × 0.4 + 0.17 × 0.6 + 0.21 × 0.4 + 0.15 × 0.48 + 0.16 × 0.55 + 0.09 × 0.6) = 6500 × 0.488 = 3172
Females = 6500 - 3172 = 3328
∴ Difference = 3328 - 3172 = 156

84. 4; Females $(E_1 + E_2 + E_3)$ = 9000(0.18 × 0.55 + 0.15 × 0.52 + 0.24 × 0.45) = 9000 × 0.285 = 2565

$$\therefore \text{Reqd } \% = \frac{2565}{9000} \times 100 = 28.5\%$$

85. 4; Total Males $(E_5 + E_6)_B$ = 702 + 513 = 1215
Total Males $(E_4 + E_5)_A$ = 468 + 572 = 1040
∴Required per cent

$$= \frac{(1215 - 1040)}{1040} \times 100 = \frac{175}{1040} \times 100$$

= 16.826% ≈ 17%

86. 3; Required number of females

$$= \frac{10200}{3} \times 1 = 3400$$

87. 4; Male-Hindi - 1990 $= \frac{10200}{3} \times 2 = 6800$

Female-English - 1960 $= \frac{4400}{11} \times 3 = 1200$

$\therefore$ Ratio $= \frac{6800}{1200} = \frac{17}{3} = 17:3$

88. 2; The required average

$= \left(6000 \times \frac{1}{3} + 6400 \times \frac{3}{8} + 10000 \times \frac{2}{5} + 10200 \times \frac{1}{3} + 10600 \times \frac{1}{2} + 13000 \times \frac{6}{13}\right) \div 6$

$= (2000 + 2400 + 4000 + 3400 + 5300 + 6000) \div 6$

$= \frac{23100}{6} = 3850$

89. 1; Hindi 1980 $= \frac{10000}{5} \times 2 = 4000$

English 1980 $= \frac{6300}{9} \times 2 = 1400$

$\therefore$ Required per cent $= \frac{1400}{4000} \times 100 = 35\%$

90. 5; Male 1960 $= \frac{4400}{11} \times 8 = 3200$

Female 2010 $= \frac{10500}{3} \times 1 = 3500$

$\therefore$ Required per cent

$= \frac{3500 - 3200}{3200} \times 100 = 9.375\%$

91. 4; Number of Female mobile users of LG brand in City C

$= 40 \times \frac{54}{100} = 21.6$ thousand $= 21600$

92. 3; Total number of Male users of Nokia brand
$= 45 \times 0.49 + 30 \times 0.52 + 75 \times 0.55 + 20 \times 0.5 + 90 \times 0.45 + 50 \times 0.58$ thousand
$= 22.05 + 15.6 + 41.25 + 10 + 40.5 + 29$
$= 158.4$ thousand $= 158400$

93. 1; Required difference

$= \frac{(345 - 324)}{6} \times 1000 = 3500$

94. 5; Female Samsung users of A and B together
$= 32 \times 0.45 + 72 \times 0.42$
$= 14.4 + 30.24 = 44.64$ thousand $= 44640$
Male LG users of C and D together
$= 40 \times 0.46 + 40 \times 0.61 = 18.4 + 24.4 = 42.8$ thousand $= 42800$

$\therefore$ Required per cent $= \frac{44640}{42800} \times 100$

$= 104\frac{32}{107}\% \approx 104.29\%$

95. 2; Male users of Nokia in City E $= 90 \times 0.45 = 40.5$ thousand
Female users of Nokia in City F'
$= 50 \times 0.42 = 21$ thousand

$\therefore \% = \frac{(40.5 - 21)}{21} \times 100 \approx 92.857 \approx 93\%$

96. 2; Required number of persons

$= 7200000 \times \frac{23.6}{100} \times \frac{31}{50} = 1053504$

97. 1; Required difference

$= 7200000 \times \frac{14.5}{100} \times \frac{(67 - 23)}{(67 + 23)}$

$= 72000 \times 14.5 \times \frac{44}{90} = 510400$

98. 5; City C $= 72 \times \frac{9.6}{100} \times \frac{11}{18} = 4.224$ lakh

City D $= 72 \times \frac{23.6}{100} \times \frac{31}{50} = 10.53504$ lakh

City E $= 72 \times \frac{12.8}{100} \times \frac{41}{60} = 6.2976$ lakh

$\therefore$ Average $= \frac{4.224 + 10.53504 + 6.2976}{3}$

$= 7.01888$ lakh $= 701888$

99. 5; Required per cent $= \frac{14.5 \times 100}{9.6} \approx 151\%$

100. 2; The total number of Educated persons
$= 798000 + 809600 + 422400 + 1053504 + 629760 + 777200 = 4490464$

$\therefore$ Regd% $= \frac{4490464}{7200000} \times 100 \approx 62.367$

101. 5; Number of Female employees of Company A in department D_5

$= 8000 \times \frac{10}{100} \times \frac{2}{5} = 320$

Number of Female employees of Company B in department $D_5 = 7500 \times \frac{10}{100} \times \frac{27}{50} = 405$

$\therefore$ Total $= 320 + 405 = 725$

102. 1; Number of Female employees in department D, of Company B

$= 7500 \times \frac{24}{100} \times \frac{7}{20} = 630$

Number of Female employees in department D_1 of Company A $= 8000 \times \frac{20}{100} \times \frac{3}{8} = 600$

$\therefore$ Reqd % $= \frac{(630 - 600)}{600} \times 100 = \frac{3000}{600} = 5\%$

103. 2; Total Male employees of Company A
= 1000 + 765 + 600 + 896 + 480 + 720
= 4461
Total Female employees of Company B
= 630 + 504 + 720 + 520 + 405 + 450
= 3229
$\therefore$ Difference = 4461 – 3229 = 1232

104. 4; Average number of Female employees number of Company B

$$= \frac{D_1 + D_2}{2} = \frac{1170 + 396}{2} = \frac{1566}{2} = 783$$

Average of Company A

$$= \frac{D_5 + D_6}{2} = \frac{320 + 400}{2} = \frac{720}{2} = 360$$

$$\therefore \text{ Reqd } \% = \frac{783}{360} \times 100 = 217.5\%$$

105. 3; Total number of Female employees of Company A = 600 + 595 + 840 + 784 + 320 + 400 = 3539
Total employees of company A = 8000

$$\therefore \text{ Reqd } \% = \frac{3539}{8000} \times 100 = 44.2375 \approx 44.24\%$$

106. 4; Girls in D are 35%. So total number of students in D = $\frac{462 \times 100}{35} = 1320$
Total number of students in C

$$= \frac{28.8}{360}\left\{\frac{360 \times 1320}{43.2}\right\} = 880$$

107. 3; $\text{Boys}_B = \left\{\frac{1760 \times 360}{57.6}\right\} \times \frac{61.2}{360} \times \frac{70}{100} = 1309$

108. 2; The total number of students in E

$$= 11000 \times \frac{54}{360} = 1650$$

Number of girls in E = $1650 \times \frac{42}{100} = 693$
Number of boys in E = 1650 - 693 = 957
$\therefore$ Difference = 957 - 693 = 264

109. 5; Number of girls in D

$$= 858 \times \frac{35}{65} = 462$$

Number of girls in C

$$= \left\{\frac{28.8}{43.2} \times (462 + 858)\right\} \times \frac{45}{100} = 396$$

$$\therefore \text{ Average } = \frac{396 + 462}{2} = 429$$

110. 4; Number of girls in F = $\frac{45 \times 1936}{55} = 1584$
Total students in F = 1584 + 1936 = 3520
Total number of students in all six schools

$$= \frac{360}{115.2} \times 3520 = 11000$$

$$\therefore \text{ Reqd } \% = \frac{1584}{11000} \times 100 = 14.4\%$$

111. 5; Total graduates

$$= \frac{4000}{100} \times [18 \times 0.45 + 20 \times 0.37 + 14 \times 0.6 + 15 \times 0.51 + 9 \times 0.55 + 24 \times 0.4]$$
$$= 40 \times (8.1 + 7.4 + 8.4 + 7.65 + 4.95 + 9.6)$$
$$= 40 \times 46.1 = 1844$$

$$\therefore \text{ Reqd\% } = \frac{1844}{4000} \times 100 = 46.1\%$$

112. 3; Male employees in Unit B

$$= 4000 \times \frac{20}{100} \times \frac{9}{16} = 450$$

Female employees in Unit E

$$= 4000 \times \frac{9}{100} \times \frac{3}{10} = 108$$

$$\therefore \text{ Ratio} = \frac{450}{108} = \frac{25}{6} = 25 : 6$$

113. 1; Male employees in Unit D

$$= 4000 \times \frac{15}{100} \times \frac{14}{25} = 336$$

Total number of employees = 4000

$$\therefore \text{ Reqd\% } = \frac{336}{4000} \times 100 = 8.4\%$$

114. 2; Graduate employees in Unit A

$$= 4000 \times \frac{18}{100} \times \frac{45}{100} = 324$$

Female employees of Unit A

$$= 4000 \times \frac{18}{100} \times \frac{5}{18} = 200$$

$$\therefore \text{ Reqd\% } = \frac{(324 - 200)}{200} \times 100 = 62\%$$

115. 3; Total males

$$= \frac{4000}{100}\left(18 \times \frac{13}{18} + 20 \times \frac{9}{16} + 14 \times \frac{17}{28} + 15 \times \frac{14}{25} + 9 \times \frac{7}{10}\right)$$
$$\left(+24 \times \frac{7}{12}\right)$$
$$= 40 (13 + 11.25 + 8.5 + 8.4 + 6.3 + 14)$$
$$= 40 \times 61.45 = 2458$$
Total females = 4000 - 2458 = 1542
$\therefore$ Difference = 2458 - 1542 = 916

116. 2; $\text{LCD}_A = 80000000 \times \frac{20}{100} \times \frac{3}{5} = \text{Rs } 9600000$

$\text{LCD}_D = 80000000 \times \frac{10}{100} \times \frac{2}{5} = \text{Rs } 32000000$

$\therefore$ Total cost of production = Rs 12800000

= 1.28 crore

117. 3; Total profit

$= 8 \times \frac{24}{100}\left\{\frac{3}{8} \times \frac{35}{100} + \frac{5}{8} \times \frac{20}{100}\right\}$

$= \frac{24}{100}\{1.05 + 1\} = \frac{24 \times 2.05}{100} = \text{Rs } 0.492 \text{ crores}$

118. 5; $\text{Profit}_{LCD} = 8 \times \frac{12}{100} \times \frac{5}{12} \times \frac{35}{100}$

$\text{Profit}_{LED} = 8 \times \frac{12}{100} \times \frac{7}{12} \times \frac{25}{100}$

$\therefore \text{ Ratio} = \frac{7 \times 25}{5 \times 35} = \frac{1}{1} = 1:1$

119. 3; $\text{Profits}_E = 8 \times \frac{16}{100} \times \frac{7}{16} \times \frac{24}{100} = 0.1344$

$\text{Profit}_C = 8 \times \frac{18}{100} \times \frac{4}{9} \times \frac{20}{100} = 0.128$

$\therefore$ Total profit = 0.2624 crore = 26.24 lakh

120. 3; $(\text{LED cost})_A = 8 \times \frac{20}{100} \times \frac{2}{5} = 0.64$ crore

$(\text{LCD profit})_D = 8 \times \frac{10}{100} \times \frac{2}{5} \times \frac{25}{100}$

= 0.08 crore

$\therefore \text{ Reqd \%} = \frac{0.08 \times 100}{0.64} = 12.5\%$

121. 3; Total average rainfall in all the years (from June to September) $= \frac{5155}{6} = 859.166$

Average rainfall in August $= \frac{1540}{6} = 256.66$

6

$\therefore$ Reqd % $= \frac{256.66}{859.166} = 29.87 \approx 30\%$

122. 2; Reqd % $= \frac{190}{1540} \times 100 = 12.33\%$

123. 1;

In the year 2006 $\rightarrow \frac{300}{890} \times 100 = 33.70$

In the year 2007 $\rightarrow \frac{250}{900} \times 100 = 27.77$

In the year 2008 $\rightarrow \frac{255}{880} \times 100 = 28.97$

In the year 2009 $\rightarrow \frac{190}{700} \times 100 = 27.14$

In the year 2010 $\rightarrow \frac{265}{895} \times 100 = 29.60$

In the year 2011 $\rightarrow \frac{280}{890} \times$ l00 = 31.46

Hence, in the year 2006.

124. 4

125. 2; In the year 2007 $= \frac{10}{60} \times 100 = 16.66$

$2009 = \frac{10}{68} \times 100 = 14.70$

$2010 = \frac{12}{78} \times 100 = 15.38$

Hence in the year 2007.

126. 2; Revenues of all three companies in FY 2009-10

$= \frac{10309 + 11286 + 9094}{3} = 10229.66$ crore

Again,

Revenues of all three companies in FY 2010-11 $= = \frac{12615 + 12663 + 11972}{3} = 12416.66$ crore

$\therefore$ Difference in revenues = 2187 crore

127. 3; Dr Reddy's expenditure in FY 2009-10

$= \frac{11286}{1.15} = 9813.9$ crore

Again,

Expenditure of Sun Pharmaceuticals in FY 2009-10

$= \frac{9094}{1.08} = 8420.37$ crore

Difference = 1393.53 crore $\approx$ 1394

128. 5; Revenue of all three pharma companies in FY 2009-10 = 9094 + 11286 + 10309 = 30689 crore

Revenue of all three pharma companies FY 2010-11 = 11972 + 12663 + 12615 = 37250 crore

$\therefore$ Difference = 37250 - 30689 = 6561 crore

129. 4; According to the question,

$\text{Regd \%} = \frac{11972}{12615 + 12663 + 11972} \times 100$

$= \frac{11972}{37250} \times 100 = 32.14\%$

130. 1; Expenditure of Ranbaxy Laboratories in FY 2010-11 $= \frac{12615}{1.15} = 10969.56$

Expenditure in FY 2009-10 $= \frac{10309}{1.1} =$ 9371.81

Difference in expenditure in the given year = 1597 $\approx$ 1598

131. 3;

Money invested by Unitus Equity = 80

crore

10% → 80 crore

100% → 800 crore

Total money received by shareholders = 800

$\therefore$ profit in 2011 = $800 \times \frac{10}{100}$ = 80 crore

Total dividend = $80 - 80 \times \frac{10}{100}$

= 80 - 8 = 72 crore

Total dividend = 72 crore

132. 4; Total money received = 800 crore

Total dividend = 72 crore

(as calculated in the previous question)

Difference in dividend received by India Financial Inclusion Fund and WCP Mauritius

$= 10 \times \frac{72}{100} - 9 \times \frac{72}{100} = 1\%$ of 72 crore

= 0.72 crore

133. 2; Total money received by shareholders in 2007 → 600 crore

Profit in 2007 = $3 \times \frac{600}{100} = 18$ crore

Tax paid in 2007 = $18 \times \frac{8}{100} = 1.44$ crore

Profit in the year 2011 = 80 crore

Tax paid in 2011 = $80 \times \frac{10}{100} = 8$ crore

Ratio = $\frac{1.44}{800} = \frac{9}{50}$ = 9 : 50

134. 1; Money received in 2011 = 800 crore Money received in 2010 = 720

Profit = $720 \times \frac{8}{100} = 57.6$ crore

Tax paid = $57.6 \times \frac{10}{100} = 5.76$ crore

Total Dividend = Gross profit - Tax = 57.6 - 5.76 = 51.84 crore

Dividend of Sequio Capital = $\frac{15}{100} \times 51.84$

= 7.776 = 7.78 crore

135. 2; Money invested by Elevar Equity

$= 800 \times \frac{10}{100} = 80$ crore

Total Dividend = $800 \times \frac{10}{100}$ - Tax on profit

$= 80 - \frac{80 \times 10}{100} = 72$ crore

Dividend received by Elevar Equity in 2011

$= \frac{72 \times 10}{100} = 7.2$ crore

.*. $\therefore$ Ratio = $\frac{80}{80 + 7.2} = \frac{800}{87.2} = \frac{400}{436}$

= 400 : 436

136. 2; Average number of applicants for IIT = $\frac{1.5 + 2.5 + 3 + 2.5 + 3.5 + 5}{6}$

$= \frac{18}{6} = 3$ lakh

Average number of applicants for AIEEE = $\frac{2.5 + 3.5 + 4.5 + 4 + 5.5 + 7}{6} = \frac{27}{6}$

= 4.5 lakh

Reqd % = $\frac{3}{4.5} \times 100 = 66\frac{2}{3}\%$

137. 2; In the year 2008, % increase is the Maximum.

138. 1; Number of female applicants for State Entrance Exam in 2011

= 4 × 22.75 × 1000 = 91000

Number of female applicants for AIEEE in 2011 = 27000 × 7= 189000

Reqd % = $\frac{91000}{189000} \times 100 = 48.14$

139. 4; Number of male applicants for State entrance Exam in 2010 = 5 × 78000 = 390000

Number of male applicants for State Entrance Exam in 2009 = 5.5 × 75000 = 412500

% decrease = $\frac{412500 - 390000}{412500} = \frac{22500}{412500}$

= 5.45%

140. 5; Number of male applicants for IIT is not known; hence it can't be determined

141. 5; Total population in any year is not given, so we cannot determine the population of all the states in 2010.

142. 1; Population of State A in the year 2008 = 55 lakh

Population of State A in the year 2007 = 50 lakh

The number of females below poverty line in State A in the year 2007 = $50 \times \frac{24}{100} \times \frac{5}{15} =$ 4 lakh

143. 2; Population of A below poverty line in the year 2010 = $60 \times \frac{32}{100} = 19.2$ lakh

Population of B below poverty line in the year 2010 = $55 \times \frac{38}{100} = 20.9$ lakh

Population of C below poverty line in the year 2010 = $62 \times \frac{40}{100} = 24.8$ lakh

$\therefore$ Total population below poverty line in the year 2010 = 19.2 + 20.9 + 24. 8 = 64.9 lakh

144. 3; The number of females below poverty line, in State B in the year 2010

$$= 55 \times \frac{38}{100} \times \frac{10.9}{20.9}$$

$$= 20.9 \times \frac{10.9}{20.9} = 10.90 \text{ lakh}$$

Again,

In state C in the year 2010 = $62 \times \frac{40}{10} \times \frac{10}{20}$ = 12.4 lakh.

$\therefore$ Reqd ratio = $\frac{109}{124} = 109 : 124$

145. 1; Population of State C in the year 2007 = 40 lakh

Number of males below poverty line in State C in the year 2007 = $40 \times \frac{45}{100} \times \frac{10}{15}$ = 12 lakh

Population of State C in 2009 = 40 + $40 \times \frac{21}{100}$ = 48.4 lakh

Number of males below poverty line in State C in 2009 = $48.4 \times \frac{42}{100} \times \frac{10}{14} = 14.52$ lakh

Reqd % increase

$$= \frac{(14.52 - 12)}{12} \times 100 = \frac{2.52}{12} \times 100 = 21\%$$

146. l; Reqd%

$$= \frac{50}{130 + 150 + 100 + 120 + 140 + 160} \times 100$$

$$= 50 \times \frac{100}{800} = 6.25\%$$

147. 2;

Number of females visiting B

= 150000 × $\frac{30}{100}$ = 45000

Number of females visiting F

= 160000 × $\frac{35}{100}$ = 56000

$\therefore$ Reqd ratio = $\frac{45000}{56000} = 45 : 56$

148. 3; Children visiting C = 100000 × $\frac{30}{100}$ = 30000

Males visiting B = 150000 × $\frac{50}{100}$ = 75000

$\therefore$ Reqd ratio = $\frac{30000}{75000} \times 100$

$$= \frac{30}{75} \times 100 = \frac{2}{5} \times 100 = 40\%$$

149. 5; Population of individual location is not given.

150. 4; Number of males visiting place F

= 160000 × $\frac{55}{100}$ = 88000

Number of females visiting place D

= 120000 × $\frac{40}{100}$ = 48000

$\therefore$ Reqd Ratio = $\frac{88}{48} = \frac{11}{6} = 11 : 6$

151. 3; $\text{Reqd } \% = \frac{95}{89 + 95 + 40 + 38 + 30 + 120 + 38}$

$= \frac{95}{450} \times 100 = 21.10\% \approx 21\%$

152. 5; Production of cotton in MP = 33 × $\frac{40}{100}$

= 13.2 lakh tonnes

Production of jowar = 52.8 lakh tonnes

$\therefore$ Reqd % = $\frac{13.2}{52.8} \times 100 = 25\%$

153. 1; Production of vegetables in UP

= 28 × $\frac{40}{100}$ = 11.2 lakh tonnes

Production of pulses = 20 lakh tonnes

$\therefore$ Reqd ratio = $\frac{200}{112} = 25 : 14$

154. 3; Production of 'Other' in MP in year 2010 = 33 lakh tonnes

Production of 'Other' in MP in the year 2009 = $\frac{330}{111}$ = 30 lakh tonnes

$\therefore$ Production of sugarcane = 30 × $\frac{20}{100}$ = 6 lakh tonnes

155. 4; Average production of rice

$$= \frac{49 + 51 + 60 + 42 + 70 + 58 + 40}{7} = 52.85$$

Average production of wheat

$= \frac{95 + 89 + 40 + 38 + 30 + 120 + 38}{7} = 64.28$

Difference = 64.28 - 52.28 ≈ 11.43

= 11 lakh tonnes

156. 3; Sale of Company A =

$56 \times \frac{45}{100} + 60 \times \frac{40}{100} + 80 \times \frac{75}{100} + 70 \times \frac{50}{100} + 96 \times \frac{55}{100}$

= 25.2 + 24 + 60 + 35 + 52.8 = 197 thousand

157. 5; Sale of Company B in the year 2008

$= 72 \times \frac{50}{100} = 36$ thousand

Sale of Company B in the year 2010

$= 75 \times \frac{60}{100} = 45$ thousand

$\therefore$ Reqd % = $\frac{45 \times 100}{36} = 125\%$

158. 3; $\therefore$ Average = $\frac{1}{5} \times \frac{1}{100}\{72 \times 50 + 48 \times 25 + 75 \times 60 + 90 \times 40 + 50 \times 70\}$

$= \frac{1}{500}\{3600 + 1200 + 4500 + 3600 + 3500\}$

$= \frac{16400}{500} = 32.8$ thousand

159. 3; 2009 → $\frac{2400}{72} = 33\%$ fall

2010 → $\frac{2700}{48} = 56.25\%$ rise

2011 → $\frac{1500}{75} = 20\%$ rise

2012 → $\frac{4000}{90} = 44.44\%$ fall

160. 5; Sale of Company B in the year 2011

$= 90 \times \frac{40}{100} = 36$ thousand

Sale of Company A in the year 2009

$= 60 \times \frac{40}{100} = 24$ thousand

$\therefore$ Reqd % = $\frac{36 - 24}{24} \times 100$

$= \frac{1200}{24} = 50\%$

161. 2; The population of Company A above povertv line = $90 \times \frac{18.5}{100} \times \frac{36}{100}$ = 5.994 crore

162. 5; Difference = $90 \times \frac{12.5}{100} \times \frac{(72 - 28)}{100}$

$= \frac{90 \times 12.5 \times 44}{10000} = 4.95$ crore

163. 4; $\frac{90}{100 \times 100}\{18.5 \times 64 + 8 \times 70 + 15 \times 60 + 12.5 \times 72 + 17 \times 50 + 29 \times 56\}$

$= \frac{90}{10000} \times \{1184 + 560 + 900 + 900 + 850 + 1624\} = \frac{9 \times 6018}{1000} = 54.162$ crore

164. 3; Population of Company C above poverty line = $90 \times \frac{15}{100} \times \frac{40}{100}$

Population of Company D below poverty line $= 90 \times \frac{12.5}{100} \times \frac{72}{100}$

$\therefore$ Ratio $= \frac{15 \times 40}{12.5 \times 72} = \frac{600}{900} = \frac{2}{3} = 2 : 3$

165. 1; Population of Company B above poverty line = $90 \times \frac{8}{100} \times \frac{30}{100} = 2.16$ crore Population of Company E below poverty line

$= 90 \times \frac{17}{100} \times \frac{50}{100} = 7.65$ crore

$\therefore$ Reqd % $= \frac{2.16}{7.65} \times 100 = 28.23 \approx 28\%$

166. 4; Total number of females = 900000 × $\{\frac{15}{100} \times \frac{4}{15} + \frac{21}{100} \times \frac{3}{7} + \frac{12}{100} \times \frac{5}{12} + \frac{18}{100} \times \frac{7}{18} + \frac{10}{100} \times \frac{3}{10} + \frac{24}{100} \times \frac{5}{12}\}$

= 9000 × {4 + 9 + 5 + 7 + 3 + 10} = 9000 × 38 = 342000

$\therefore$ Average = $\frac{342000}{6} = 57000$

167. 3; Difference

$= \frac{90.0000}{100}\{15 \times \frac{5}{9} + 21 \times \frac{5}{21} + 12 \times \frac{1}{3} + 18 \times \frac{1}{9} + 10 \times \frac{5}{9} + 24 \times \frac{2}{8}\}$

$= 9000 \times \{\frac{25}{3} + 5 + 4 + 2 + \frac{50}{9} + 6\}$

$= 9000 \times \left\{\frac{75 + 45 + 36 + 18 + 50 + 54}{9}\right\}$

$= 9000 \times \frac{278}{9} = 278000 = 2.78$ lakh

168. 3; Male newspaper readers from City F

$= 900000 \times \frac{24}{100} \times \frac{7}{12} = 1.26$ lakh

English newspaper readers from City B

$= 900000 \times \frac{21}{100} \times \frac{8}{21} = 0.72$ lakh

$\therefore$ Reqd % $= \frac{1.26 \times 100}{0.72} = 175\%$

169. 4; Female newspaper readers from City

$D = 900000 \times \frac{18}{100} \times \frac{7}{18} = 0.63$ lakh

Hindi newspaper readers from City A

$= 9 \times \frac{15}{100} \times \frac{7}{9} = 1.05$ lakh

$\therefore$ Ratio $= \frac{0.63}{1.05} = \frac{63}{105} = \frac{3}{5} = 3:5$

170. 1; Female readers from City B

$= 900000 \times \frac{21}{100} \times \frac{3}{7} = 0.81$ lakh

Female readers from City C

$= 900000 \times \frac{12}{100} \times \frac{5}{12} = 0.45$ lakh

$\therefore$ Reqd % $= \frac{(0.81 - 0.45)}{0.45} \times 100$

$= \frac{0.36}{0.45} \times 100 = 80\%$

171. 3; Total number of students who appeared from Rural area =

$\frac{80000}{100}(27 \times \frac{11}{27} + 24 \times \frac{3}{8} +$

$16 \times \frac{7}{16} + 15 \times \frac{5}{12} + 18 \times \frac{7}{18}\}$

= 800 × {11 + 9 + 7 + 6.25 + 7}

= 800 × 40.25 = 32200

172. 4; Total number of students who appeared from State B = 80000 × $\frac{24}{100} \times \frac{5}{8}$ = 12000

Total number of Urban students who succeeded from State B

$= 24000 \times \frac{21}{100} \times \frac{4}{7} = 2880$

$\therefore$ Difference = 12000 - 2880 = 9120

173. 2; Total number of Rural students who appeared from State B

$= 80000 \times \frac{24}{100} \times \frac{3}{8} = 7200$

Total number of Rural students who succeeded from State B = 24000 $\times \frac{21}{100} \times \frac{3}{7} = 2160$

$\therefore$ Reqd % = $\frac{2160}{7200} \times 100 = 30\%$

174. 5; Average = $\frac{1}{5} \times \frac{80000}{100}\{27 \times \frac{16}{27} + 24 \times \frac{5}{8}$

$+16 \times \frac{9}{16} + 15 \times \frac{7}{12} + 18 \times \frac{11}{18}\}$

= 160 × {16 + 15 + 9 + 8.75 + 11}

= 160 × 59.75 = 9560

175. 1; Number of Rural students who succeeded from State A

$= 24000 \times \frac{32}{100} \times \frac{15}{32} = 3600$

Number of Urban students who succeeded from State E

$= 24000 \times \frac{15}{100} \times \frac{11}{15} = 2640$

$\therefore$ Reqd % = $\frac{(3600 - 2640)}{2640} \times 100 = \frac{9600}{264}$

= 36.36% = 36

176. 2; Items sold by B_{2010}

= 45000 × $\frac{47}{100}$ = 21150

177. 4; Sale A_{2011} = 60000 × $\frac{36}{100}$ = 21600

SaleA_{2012} = 92000 × $\frac{32}{100}$ = 29440

$\therefore$ Difference = 29440 - 21600 = 7840

178. 3; B_{2009} = 81000 × $\frac{35}{100}$ = 28350

And $B^{2012} = 80000 \times \frac{65}{100} = 52000$

Reqd % $= \frac{28350}{52000} \times 100 = 54.5\%$

179. 5; Average number of items sold by A

$$= \frac{58 \times \frac{35}{100} + 72 \times \frac{45}{100} + 48 \times \frac{56}{100} + 60 \times \frac{36}{100} + 92 \times \frac{32}{100}}{5}$$

$$= \frac{20.3 + 32.4 + 26.88 + 21.6 + 29.44}{5}$$

$= \frac{130.62}{5} = 26.124$ thousand $= 26124$

180. 4; The number of items sold by B^{2011}

$= 50{,}000 \times \frac{56}{100} = 28000$

The number of items sold by A^{2011}

$= 60000 \times \frac{36}{100} \quad = 21600$

Reqd % $= \frac{(28000 - 21600)}{21600} \times 100$

$= \frac{6400}{216} = 29.62 \approx 30$

181. 5; Adult population in City E

$= 8.5 \times \frac{15}{100} \times \frac{70}{100} = 0.8925$ lakh $= 89250$

Adult population in Ciy F

$= 8.5 \times \frac{10}{100} \times \frac{60}{100} = 0.51$ lakh $= 51000$

$\therefore$ Reqd % $= \frac{89250}{51000} \times 100 = 175\%$

182. 1; Adult population in City B

$= 8.5 \times \frac{24}{100} \times \frac{65}{100} = 1.326$ lakh

The population in City D

$= 8.5 \times \frac{14}{100} = 1.19$ lakh

$\therefore$ Difference = 1.326 - 1.19

= 0.136 lakh = 13600

183. 5; Difference $= \frac{8.5 \times 16 \times 75}{10000} \times \frac{1}{5} = 0.204$ lakh

$= 20400$

184. 3; Total population of City A

$= 8.5 \times \frac{21}{100} = 1.785$ lakh $= 178500$

Adult female population of City A

$= 178500 \times \frac{72}{100} \times \frac{5}{12} = 53550$

Reqd % $= \frac{53550}{178500} \times 100 = 30\%$

185. 5; Ratio of males to females is 8 : 5.

Reqd % $= \frac{8-5}{5} \times 100 = 60\%$

186. 2; Reqd % $= \frac{72-64}{64} \times 100 = \frac{800}{64} = 12.5\%$

187. 2; Total literate population

= 64 × 0.45 + 40 × 0.5 + 60 × 0.35 + 80 × 0.55 + 50 × 0.6 = 28.8 + 20 + 21 + 44 + 30

= 143.8 lakh

= 1.438 crore

188. 5; $A \rightarrow \frac{72-64}{64} \times 100 = \frac{800}{64} = 12.5\%$

$B \rightarrow \frac{55-40}{40} \times 100 = \frac{1500}{40} = 37.5\%$

$C \rightarrow \frac{78-60}{60} \times 100 = \frac{1800}{60} = 30\%$

$D \rightarrow \frac{95-80}{80} \times 100 = \frac{1500}{80} = 18.75\%$

$E \rightarrow \frac{70-50}{50} \times 100 = \frac{2000}{50} = 40\%$

Hence, in City E the rise in population 2008 to 2012 is the maximum.

189. 4; Literate population in City B in the year 2008

$= 40 \times \frac{50}{100} = 20$ lakh

Literate population in City B in the year 2012

$= 55 \times \frac{72}{100} = 39.6$ lakh

$\therefore \text{Reqd } \% = \frac{(39.6-20)}{20}\times 100 = \frac{1960}{20} = 98\%$

190. 1; Total population in 2012

= 72 + 55 + 78 + 95 + 70

= 370 lakh

Total literate population in 2012

= 72 × 0.55 + 55 × 0.72 + 78 × 0.5 + 95 × 0.6 + 70 × 0.5 = 39.6 + 39.6 + 39 + 57 + 35

= 210.2 lakh

Total illiterate population in 2012

= 370 - 210.2 = 159.8 lakh

= 1.598 crore

191. 3; Population of City C which is above poverty line $= 90\times\frac{8}{100}\times\frac{65}{100} = 4.68$ lakh

192. 2; $\therefore$ Difference $= 90\times\frac{22}{100}\times\frac{(55-45)}{100} = 1.98$ lakh

193. 1; Population of City A which is above poverty line $= 90\times\frac{10}{100}\times\frac{52}{100} = 4.68$ lakh

Population of City D which is below poverty line

$90\times\frac{13}{100}\times\frac{40}{100} = 4.68$ lakh

$\therefore$ Ratio =1:1

194. 3; Population of City G which is above poverty line $= 90\times\frac{9}{100}\times\frac{50}{100} = 4.05$ lakh

Population of City A which is below poverty line

$= 90\times\frac{10}{100}\times\frac{48}{100} = 4.32$ lakh

$\therefore \text{Reqd } \% = \frac{4.05\times 100}{4.32} = 93.75\% \approx 94\%$

195. 4; Population of City B which is below poverty line $= 90\times\frac{20}{100}\times\frac{45}{100} = 8.1$ lakh

Population of City D which is below poverty line $= 90\times\frac{13}{100}\times\frac{40}{100} = 4.68$ lakh

$\therefore \text{Reqd } \% = \frac{8.1-4.68}{4.68}\times 100 = \frac{342}{4.68}$

$= 73.076 \approx 73$

196. 2; Total number of LCDs sold in the year 2009

$= 69000\times\frac{42}{100} = 28980$

197. 3; Average $= \frac{1}{5}$ {65 × 0.48 + 60 × 0.56 + 80 × 0.65 + 70 × 0.6 + 90 × 0.7}

$= \frac{1}{5}(31.2 + 33.6 + 52 + 42 + 63) = \frac{221.8}{5}$

= 44.36 thousand = 44360

198. 4; LCDs sold by Samsung in the year

$2010 = 50000\times\frac{45}{100} = 22500$

LEDs produced by Samsung in the year 2009 = 60000

$\text{Reqd } \% = \frac{22500}{60000}\times 100 = 37.5\% \approx 38\%$

199. 2; The number of unsold LED TVs in the year 2008 = 65 × 0.52 = 33.8

The number of unsold LED TVs in the year 2009 = 60 × 0.44 = 26.4

The number of unsold LED TVs in the year 2010 = 80 × 0.35 = 28

The number of unsold LED TVs in the year 2011 = 70 × 0.40 = 28

The number of unsold LED TVs in the year 2012 = 90 × 0.30 = 27

So, the minimum unsold LED TVs are there in the year 2009

200. 2; The number of LCD TVs sold in the year 2012

= 75 × 0.6 = 45 thousand

LED TVs sold in the year 2009

= 60 × 0.56 = 33.6 thousand

$\therefore \text{Reqd } \% = \frac{(45-33.6)}{33.6}\times 100 = \frac{1140}{33.6}$

$= 33.928 \approx 34\%$

201. 2; Total number of model M_2 items sold by Company A

$= 500000\times\frac{21}{100}\times\frac{3}{7}\times\frac{45}{100} = 20250$

202. 4; Total number of model M_2 items sold by Company C

$= 500000 \times \frac{12}{100} \times \frac{1}{3} \times \frac{65}{100} = 13000$

$\therefore$ Total earning = 13000 × 115 = `14.95 lakh

203. 3; Total number of model M_2 items sold by Company E

$= 500000 \times \frac{10}{100} \times \frac{2}{5} \times \frac{60}{100} = 12000$

Total number of model M_1 items sold by Company C

$= 500000 \times \frac{12}{100} \times \frac{2}{3} \times \frac{75}{100} = 30000$

$\therefore$ Reqd % = $\frac{12000}{30000} \times 100 = 40\%$

204. 1; Total number of model M_2 items sold by Company F

$= 500000 \times \frac{15}{100} \times \frac{7}{15} \times \frac{65}{100} = 22750$

Total number of model M_1 items sold by CompanyD

$= 500000 \times \frac{18}{100} \times \frac{4}{9} \times \frac{55}{100} = 22000$

$\therefore$ Difference = 22750 - 22000 = 750

205. 2; Total number of model M_1 items produced by Company B

$= 500000 \times \frac{24}{100} \times \frac{3}{8} = 45000$

Total number of model M_1 items unsold by Company B $= 45000 \times \frac{40}{100} = 18000$

Total number of model M_2 items produced by Company B

$= 500000 \times \frac{24}{100} \times \frac{5}{8} = 75000$

Total number of model M_2 items unsold by Company B = $75000 \times \frac{46}{100} = 34500$

$\therefore$ Total unsold (M_1 + M_2) items = 18000 + 34500 = 52500

206. 5; Number of boys in School P

= 1500 × $\frac{80}{100}$ = 1200

Number of boys in School R

= 2000 × $\frac{75}{100}$ = 1500

Total number of students in P and R together

= 1500 + 2000 = 3500

$\therefore$ Reqd% = $\frac{2700}{3500} \times 100 = 77.14\% \approx 77$

207. 4; Number of boys in Schools S and T together

$= 1500 \times \frac{85}{100} + 2500 \times \frac{70}{100}$

= 1275 + 1750 = 3025

208. 5; $\therefore$ Reqd average = $\frac{1}{2}\left[2000 \times \frac{75}{100} + 2500 \times \frac{70}{100}\right]$

$\frac{1}{2}[1500 + 1750] = 1625$

209. 3; $\therefore$ Reqd ratio = $\frac{1500 \times \frac{20}{100}}{2500 \times \frac{70}{100}} = \frac{6}{35} = 6:35$

210. 4; Number of boys in School T

$= 2500 \times \frac{70}{100} = 1750$

Number of girls in School S

$= 1500 \times \frac{15}{100} = 225$

$\therefore$ Reqd% = $\frac{1750}{225} \times 100 = 777.77\% \approx 778$

211. 2; Number of supervisors

= $\frac{1}{4}$ × 8000 = 2000

$\therefore$ Reqd difference = $\frac{7}{10} \times 2000 - \frac{3}{10} \times 2000$

= 1400 - 600 = 800

212. 3; The number of promotee Clerk II

$= \frac{15}{100} \times 8000 \times \frac{60}{100} = 720$

The number of direct-recruit Clerk II

$= \frac{15}{100} \times 8000 \times \frac{40}{100} = 480$

$\therefore$ Reqd% = $\frac{720}{480} \times 100 = 150\%$

213. 4; The number of direct-recruit Officer II

$= \frac{1}{5} \times 8000 \times \frac{3}{5} = 960$

214. 5; ∴ Reqd number

$$= \frac{30}{100} \times 8000 \times \frac{40}{100} + \frac{20}{100} \times 8000 \times \frac{40}{100}$$

= 960 + 640 ~ 1600

215. 5; ∴ Reqd number

$$= \frac{1}{4} \times 8000 \times \frac{3}{10} + \frac{15}{100} \times 8000 \times \frac{2}{5} + \frac{1}{5} \times 8000 \times \frac{3}{5}$$

= 2040

216. 4; Reqd ratio

$$\frac{\text{Male employees in OS Department}}{\text{Male employees in Policy Servicing}}$$

$$= \frac{\frac{7}{10} \times 10 \times \frac{3000}{100}}{\frac{2}{5} \times 15 \times \frac{3000}{100}} = \frac{21}{18} = \frac{7}{6} = 7:6$$

217. 4; Number of male employees in Claims Deptt $= \frac{30}{100} \times 3000 \times \frac{5}{9} = 500$

Number of females employees in Office Servicing

$$\frac{10}{100} \times 3000 \times \frac{3}{10} = 90$$

$$\text{Reqd\%} = \frac{500 - 90}{90} \times 100$$

$$= \frac{410}{90} \times 100 = 455.5\% \approx 456\%$$

218. 1; Total number of employees in Admin

$$= \frac{20}{100} \times 3000 = 600$$

Number of female employees in

New Business $= \frac{25}{100} \times 3000 \times \frac{7}{15} = 350$

∴ Difference = 600 - 350 = 250

219. 4; Reqd ratio

$$\frac{\text{Numbcrof males in OS} + \text{Numberof males in New Business}}{\text{Number of females in OS} + \text{Numberof females in New Business}}$$

$$= \frac{3000 \times \frac{10}{100} \times \frac{7}{10} + 3000 \times \frac{25}{100} \times \frac{8}{15}}{3000 \times \frac{10}{100} \times \frac{3}{10} + 3000 \times \frac{25}{100} \times \frac{7}{15}}$$

$$= \frac{210 + 400}{90 + 350} = \frac{610}{440} = \frac{61}{44} = 61:44$$

220. 5; Number of female employees in Admin

$$= \frac{1}{5} \times 3000 \times \frac{2}{3} = 400$$

(221-225):

Speed of train P

On Day 1 $\rightarrow \frac{980}{20} = 49 \text{km/h}$

On Day 2 $\rightarrow \frac{704}{22} = 32 \text{ km/h}$

On Day 3 $\rightarrow \frac{1127}{23} = 49 \text{ km/h}$

Similarly, for train Q, the speed

On Day 1 $\rightarrow \frac{720}{15} = 48 \text{ km/h}$

On Day 2 $\rightarrow \frac{1012}{22} = 46 \text{ km/h}$

On Day 3 $\rightarrow \frac{1120}{20} = 56 \text{ km/h}$

For train R the speed

On Day 1 $\rightarrow \frac{1044}{18} = 58 \text{ km/h}$

On Day 2 $\rightarrow \frac{1008}{16} = 63 \text{ km/h}$

On Day 3 $\rightarrow \frac{1254}{22} = 57 \text{ km/h}$

For Train S the speed

On Day 1 $\rightarrow \frac{1026}{18} = 57 \text{km/h}$

On Day 2 $\rightarrow \frac{855}{15} = 57 \text{km/h}$

On Day 3 $\rightarrow \frac{741}{13} = 57 \text{km/h}$

For Train T, the speed

On Day 1 $\rightarrow \frac{1140}{20} = 57 \text{km/h}$

On Day 2 $\rightarrow \frac{1144}{22} = 52 \text{km/h}$

On Day 3 $\rightarrow \frac{918}{17} = 54 \text{km/h}$

For Train U the speed

On Day 1 $\rightarrow \frac{871}{13} = 67 \text{km/h}$

On Day 2 $\rightarrow \frac{1224}{18} = 68$ km/h

On Day 3 $\rightarrow \frac{1518}{23} = 66$km/h

221. 1; Train S has the same speed on all three days.

222. 5; The speed of train P on 1st day = 49 km/h

The speed of train S on 2nd day = 57 km/h

$\therefore$ Difference = 57 - 49 = 8 km/hr

223. 2; The speed of train R on 2nd day = 63 km/h Speed in metre per second

$= 63 \times \frac{5}{18} = 17.5$m/s

224. 4; On the 3rd day the speed of Train U = 66 km/h

On 1st day the speed of Train U = 67 km/h

Reqd% $= \frac{66}{67} \times 100 = 98.5 \approx 98\%$

225. 1; Speed of Train T on Day 2 = 52 km/h

Speed of Train U on Day 2 = 68 km/h

$\therefore$ Reqd ratio $= \frac{52}{68} = 13 : 17$

226. 3; Reqd ratio

$= \frac{750 \times 13 \times 4}{25} : \frac{750 \times 22 \times 8}{25}$

= 1560 : 5280 = 39 : 132

227. 4; Number of computers sold by Company Y in the month of May

$= 75000 \times \frac{15}{100} \times \frac{6}{25} = 2700$

37% of computers sold by Company Y at a discount $= 2700 \times \frac{37}{100} = 999$

Number of computers sold without discount = 2700 - 999 = 1701

Quicker Method:

Number of computers sold by Company Y without discount

$= 75000 \times \frac{15}{100} \times \frac{6}{25} \times \frac{63}{100} = 1701$

228. 2; Number of computers sold in the month of April

$= 75000 \times \frac{22}{100} = 750 \times 22 = 16500$

Total number of computers of Company Y sold/during the month of April

$= 16500 \times \frac{8}{25} = 660 \times 8 = 5280$

$\therefore$ Total profit = 5280 × 517 = ` 2729760

229. 5; Total number of computers Company X sold during the month of January

$= 75000 \times \frac{21}{25} \times \frac{13}{100} = 750 \times \frac{21}{25} \times 13 = 8190$

Total number of computers of Company X sold during the month of May

$= 75000 \times \frac{19}{25} \times \frac{15}{100} = 750 \times \frac{19}{25} \times 15 = 8550$

Reqd % $= \frac{8190}{8550} \times 100 = 95.78 \approx 96\%$

230. 5; Total number of computers of Company Y sold during the month of May and June together

$= 75000 \times \frac{15}{100} \times \frac{6}{25} + 75000 \times \frac{11}{100} \times \frac{11}{15}$

= 2700 + 6050 = 8750

231. 3; Production of Company Y in the year 2010

$= \frac{900}{27} \times 13 = 433.33$

Production of Company Y in the year 2011

$= \frac{1050}{27} \times 14 = 544.44$

$\therefore$ Reqd% $= \frac{111}{433} \times 100 = 25.63 \approx 25\%$

232. 1; Sales of Company Y in the year 2008

$= \frac{750}{9} \times 4 = 333.33$

Production of Company Y in the year 2008

$= \frac{1200}{15} \times 7 = 560$

Reqd % $= \frac{333.33}{560} \times 100 = 59.52 \approx 60\%$

233. 2; Average production of Company X during

2007-2012

$$= \frac{1050 \times \frac{7}{11} + 1200 \times \frac{8}{15} + 1000 \times \frac{4}{9} + \frac{900 \times \frac{14}{27} + 1050 \times \frac{13}{27} + 850 \times \frac{11}{23}}{6}}{6}$$

$$= \frac{668.18 + 640 + 444.44 + 466.67 + 505.56 + 406.52}{6}$$

$$= \frac{3131.35}{6} = 521.89 \approx 522$$

234. 1; Total production of Company X in the year 2008 = $1200 \times \frac{8}{15} = 640$

Total sales of Company X in the year 2007

$= 500 \times \frac{3}{10} = 150$

Reqd ratio = 640 : 150 = 64 : 15

235. 2; Production of Company Y in the year 2009

$= \frac{900 \times 5}{9} = 500$

Production of Company Y in the year 2008

$= \frac{1200 \times 7}{15} = 560$

Reqd ratio = $\frac{500}{560}$ = 25 : 28

236. 2; Number of cars in State-2

$= 700 \times \frac{28}{100} = 196$

Number of diesel cars in State-2 = $196 \times \frac{5}{14} = 70$

Number of cars in State-4 = $700 \times \frac{26}{100} = 182$

Number of petrol cars in State-4 = $182 \times \frac{1}{2} = 91$

∴ Difference = 91 - 70 = 21

237. 1; Number of cars in State-1

$= 700 \times \frac{14}{100} = 98$

Number of diesel engine cars in State-1

$= 98 \times \frac{3}{7} = 42$

Number of cars in State-3

$= 700 \times \frac{32}{100} = 224$

Number of petrol engine cars in State-3

$= 224 \times \frac{3}{8} = 84$

∴ Reqd % = $\frac{84 - 42}{42} = \frac{42}{42} \times 100$ =100%

238. 4; Number of cars in State-3

$= 700 \times \frac{32}{100} = 224$

Number of diesel engine cars in State-3

$= 224 \times \frac{5}{8} = 140$

Number of diesel engine cars which are AC = $140 \times \frac{25}{100} = 35$

∴ Number of non-AC diesel cars = 140 - 35 = 105

239. 5; Number of cars in State-3

$= 700 \times \frac{32}{100} = 224$

Number of petrol engine cars in State-2

$= 700 \times \frac{28}{100} \times \frac{9}{4} = 126$

∴ Difference = 224 - 126 = 98 .

240. 2; Reqd average

$$\frac{700 \times \frac{14}{100} \times \frac{4}{7} + 700 \times \frac{28}{100} \times \frac{9}{14} + 700 \times \frac{32}{100} \times \frac{3}{8} + 700 \times \frac{26}{100} \times \frac{1}{2}}{4}$$

$$= \frac{56 + 126 + 84 + 91}{4} = \frac{357}{4} = 89.25$$

241. 5; In rural areas, the average cost of renovation has increased by 40%. But the increase in the length of roads has been given for each state separately. From this, we cannot find the total increase in the length of roads renovated because the initial values are not known.
Hence the cost of the renovation cannot be determined.

242. 2; In 2007-08, the average cost of renovation in urban areas is `12500 per kilometre and the length of road renovated is 1300 km.

$\therefore$ Total cost = 1300 × 12500 = 16250000

= `1.625 crore

243. 2; As MP has the highest growth in each of the three areas individually, the growth rate in all the three areas together is the highest for MP.

244. 4; In 2007-08, the length of road renovated in semi-urban areas is 1800 km. In each state the length of the road renovated in

semi-urban areas = $\frac{1800}{4}$ = 450 Km

$\therefore$ Length of roads renovated in 2011-12

$= \frac{1800}{4}$ [2.5 + 3 + 3.5 + 2.25]

= 450 × 11.25 = 5062.5 km

The average cost of renovation in 2011-12

= 75000 × 1.5 = `1,12,500 per km

$\therefore$ Total cost = 5062.5 × 112500

= 569531250 = ` 57 crore (approx)

245. 3; In AP the length of roads renovated in 2007-08 in urban areas

$= \frac{1300}{4}$ km = 325 km

In 2011-12 = 325 × 2.25

The length of roads to be renovated in 2007-08 in semi-urban areas

$= \frac{1800}{4} = 450$

In 2011-12 = 450 × 2.5

$\therefore$ Reqd Ratio = 325 × 2.25 : 450 × 2.5

= 731.25 : 1125 = 73125 : 112500

= 13 : 20

246. 1; Total workers in night shift at

Call Centres = $40250 \times \frac{32}{100} = 12880$

$\therefore$ Number of women at Call Centres

$= 12880 \times \frac{45}{100} = 5796$

$\therefore$ Number of men at Call Centres

$= 12880 \times \frac{55}{100} = 7084$

$\therefore$ Reqd ratio = $\frac{5796}{7084}$ = 9 : 11

247. 1; Average number of females working in night shift from all sectors together

$$= 40250\left(\frac{12}{100}\times\frac{20}{100}+\frac{18}{100}\times\frac{20}{100}+\frac{32}{100}\times\frac{45}{100}\right.$$

$$\left.+\frac{8}{100}\times\frac{60}{100}+\frac{14}{100}\times\frac{40}{100}+\frac{16}{100}\times\frac{15}{1006}\right)\times\frac{1}{6}$$

$= 2227.16 \approx 2227$

248. 4; Total number of men working in night shift from all sectors together = Total workers - women workers

= 40250 - (2227 × 6) = 40250 - 13362 = 26888

249. 3; Men working in Heavy Industries - Women working in IT

$$= 40250\times\frac{16}{100}\times\frac{85}{100}-40250\times\frac{12}{100}\times\frac{20}{100}$$

= 5474 - 966

= 4508

250. 5; Number of female workers in

IT → $40250 \times \frac{12}{100}\times\frac{20}{100} = 966$

Call Centres → $40250 \times \frac{32}{100}\times\frac{45}{100} = 5796$

Sports → $40250 \times \frac{18}{100}\times\frac{20}{100} = 1449$

Sales → $40250 \times \frac{8}{100}\times\frac{60}{100} = 1932$

Finance → $40250\times\frac{14}{100}\times\frac{40}{100} = 2254$

Heavy Industries → $40250\times\frac{16}{100}\times\frac{15}{100}$ = 966

Hence, female workers are the maximum at Call Centres.

251. 2; Increase in expenditure of Congress from 1998 to 2009 = `(1300 - 800) crore

= ` 500 crore

Percentage increase in the expenditure of Congress

$= \frac{500}{800} \times 100 = 62.5\%$

Increase in expenditure of BJP from 1998 to 2009 = `(1000 - 500) crore = `500 crore

Percentage increase in the expenditure of BJP

$= \frac{500}{500} \times 100 = 100\%$

$\therefore$ Ratio = 62.5 : 100 = 5 : 8

252. 3; Figures show that in the year 2004 expenditures decrease. In 1998, percentage increase is $\frac{100}{400} \times 100 = 25\%$

In the year 1999, percentage increase is $\frac{500}{500} \times 100 = 100\%$

In the year 2009, percentage increase is $\frac{400}{600} \times 100 = \frac{2}{3} \times 100\% = 66.67\%$

Hence, in the year 1999, percentage increase in expenditure of BJP is the maximum.

253. 1; Number of male candidates in 1996 = 1500 - 450 = 1050

$\therefore$ Difference between male and female candidates = 1050 - 450 = 600

In 1998

Number of male candidates = 2250 - 750 = 1500

Number of female candidates = 750

$\therefore$ Difference between male and female candidates = 1500 - 750 = 750

In 1999, total candidates = 2000

Number of female candidates = 1000 ,

$\therefore$ Male candidates = 2000 - 1000 = 1000

$\therefore$ Difference between male and female candidates = 0

In 2004, total candidates = 4000

Number of female candidates = 750

Male candidates = 4000 - 750 = 3250

$\therefore$ Difference between male and female candidates = 3250 - 750 = 2500

In 2009, total candidates = 3500

Number of female candidates = 1500

Male candidates = 3500 - 1500 = 2000

$\therefore$ Difference between male and female candidates = 2000 - 1500 = 500

Hence, maximum difference is in 2004.

254. 3; Male candidates in 1996 = 1050 and those in 2009 = 2000

Increase in the number of males = 2000 - 1050 = 950

Female candidates in 1996 = 450

Female candidates in 2009 = 1500

Increase in the number of females = 1500 - 450 = 1050

$\therefore$ Reqd ratio = 950 : 1050 = 19 : 21

255. 2; Total voters = 120 crore

Votes received by (JDU + BJP + BSP)

$= 120\left(\frac{6}{100} + \frac{22}{100} + \frac{14}{100}\right)\text{crore} = 50.4 \text{ crore}$

Votes received by (SP + Congress)

$= 120\left(\frac{12}{100} + \frac{28}{100}\right)\text{crore} = 48\,\text{crore}$

$\therefore$ Difference = 50.4 - 48 = 2.4 crore

256. 2; Total number of Engineering Colleges in 2009 = 50 + 100 + 150 + 225 = 525

Total number of Engineering Colleges in 2012 = 175 + 250 + 325 + 425 = 1175

Increase = 1175 - 525 = 650

$\therefore$ Percentage increase = $\frac{650}{525} \times 100$

= 123.8%

257. 3; Total number of (IITs + NITs + Government Engineering Colleges) in 2009

= 50 + 100 + 150 = 300

Number of IITs in 2012 = 175

$\therefore$ Reqd ratio = 300 : 175 = 12 : 7

258. 2; Total number of colleges in 2009 = 525

Total number of colleges in 2010 = 75 + 150 + 175 + 250 = 650

$\therefore$ Percentage increase

$= \frac{\text{increase}}{525} \times 100 = \frac{125}{525} \times 100 = 23.8\%$

Total number of colleges in 2011 = 125 + 200 + 250 + 275 = 825

$\therefore$ Percentage increase = $\frac{825 - 650}{650} \times 100$

$= \frac{175}{650} \times 100 = 26.92\%$

Total number of colleges in 2012 = 1175

$\therefore$ Percentage increase = $\frac{1175 - 825}{825} \times 100$

$= \frac{1175 - 825}{825} \times 100 \; \frac{350}{825} \times 100 = 42.42\%$

259. 1; Total number of students studying in (IITs + NITs + Government Engineering Colleges) in 2012

$= 200000\left(\frac{10}{100} + \frac{15}{100} + \frac{30}{100}\right) = 55 \times 2000$

= 110000

Average of the number of students studying in (IITs + NITs + Government Engineering Colleges)

$= \frac{110000}{3} = 36666.7$

Students studying in Private Engineering Colleges in 2012 = $200000 \times \frac{45}{100} = 90000$

$\therefore$ Reqd% = $\frac{90000 - 36666.7}{900000} \times 100 = 59.25\%$

260. 3; Number of IITs and NITs in 2010 = 125 + 150 = 275
Number of IITs and NITs in 2012 = 175 + 250 = 425

$\therefore$ Percentage increase = $\frac{425 - 275}{275}$ × l00%

= $\frac{150}{275} \times 100 = 54.54\%$

261. 3; Advertisement cost charge by Magazine B in 2010 = 14 × 37.5 thousand = 5.25 lakh
Advertisement cost charged by Magazine E in 2012 = 12 × 65000 = 780000 = 7.8 lakh

$\therefore$ Reqd% = $\frac{(7.8 - 5.25)}{7.8} \times 100$

= $\frac{2.55}{7.8} \times 100 = 32.692\% \approx 32.69\%$

262. 1; Total number of advertisement pages

= $\frac{3}{7} \times 35000 = 15000$

$\therefore$ Amount charged by C = 15000 × 25000 = 375000000 = `37.5 crore

263. 2; Percentage increase in circulation over the years

A	B	C	D	E
33.33%	72%	28.57%	17.50%	21.95%

Therefore, the maximum percentage increase is in Magazine B.

264. 5; Percentage increase in the advertisement tariff of Magazine A

= $\frac{35 - 30}{30} \times 100 = \frac{100}{6}\%$

= $\frac{50}{3}\%$

Now, the percentage increase in the advertisement tariff of Magazine D

= $\frac{65 - 45}{45} \times$ l00

= $\frac{20}{45} \times 100 = \frac{400}{9}\%$

$\therefore$ Reqd ratio = $\frac{400}{9}\% : \frac{50}{3}\% = 8 : 3$

265. 1; The circulation of Magazine E in 2011 = 45000
The average circulation of Magazine C over the given years = $\frac{35 + 40 + 45}{3} = \frac{120}{3}$ = 40000

$\therefore$ Reqd % = $\frac{45000}{40000} \times 100 = 112.5\%$

266. 1; 360° = 100%

Food = $\frac{100}{360} \times 117 = 32.5\%$

Education = $\frac{100}{360} \times 54 = 15\%$

Entertainment = $\frac{100}{360} \times 45 = 12.5\%$

Travelling = $\frac{100}{360} \times 72 = 20\%$

Other expenses = 20%

Desired difference = $\frac{1}{2}$ {(14 + 28 =) 42% of 12.5% of 96000 - (16 + 9 =) 25% of 15% of 96000}

= $\frac{96000}{2}\left(\frac{42}{100} \times \frac{12.5}{100} - \frac{25}{100} \times \frac{15}{100}\right)$

= $\frac{48000}{100 \times 100}$ (525 - 375) = 4.8 × 150 = `720

Now difference percentage

= $\frac{720}{96000} \times 100 = 0.75\%$

267. 3; Required average expenses of D_1

= $\frac{1}{5}$ {(14% of 32.5% + 38% of 15% + 23%} of 20% + 18% of 12.5% + 26% of 20%) of 96000}

= $\frac{1}{5}$ (14 × 32.5 + 38 × 15 + 23 × 20 + 18 × 12.5 + 26 × 20) × $\frac{96000}{100 \times 100} = \frac{96000}{5 \times 100 \times 100}$ {455 + 570 + 460 + 225 + 520}

$= \frac{96000}{5\times100\times100} \times 2230 = ₹4281.6$

268. 4; Maximum expenses is that of Wife on Food = 33% of 32.5% of 96000

$= \frac{33}{100} \times \frac{32.5}{100} \times 96000 = ₹10296$

Minimum expenses is that of the person on himself on Entertainment = 12.5% of 14% of 96000

$= \frac{12.5}{100} \times \frac{14}{100} \times 96000 = 1680$

Difference = 10296 - 1680 = ₹8616

269. 5; Expenses of D_2 on Entertainment

= 12.5% of 23% of 96000 $= \frac{12.5\times23}{100\times100} \times$ 96000, Expenses of D_3 on Entertainment

= 12.5% of 17% of 96000 = $\frac{12.5\times17}{100\times100} \times$ 96000

Required percentage increase

$= \frac{(23-17)\% \text{ of } 12.5\% \text{ of } 96000}{12.5\% \text{ of } 17\% \text{ of } 96000} \times 100$

$= \frac{6}{17} \times 100 = \frac{600}{17} = 35\frac{5}{17}\%$

270. 2; Average expenses of person (P) on all the items

$= \frac{1}{5}$(27% of 32.5% + 16% of 15% + 30% of 20% + 14% of 12.5% + 22% of 20%) × 96000

$= \frac{19200}{100\times100}$(27 × 32.5 + 16 × 15 + 30 × 20 + 14 × 12.5 + 22 × 20)

= 1.92 × 2332.5 = ₹4478.4

Average expenses of his wife (W) on all the items = $\frac{1}{5}$ {33% of 32.5% + 9% of 15% + 12% of 20% + 28% of 12.5% + 18% of 20%} × 96000 = ₹4142.4

∴ Difference = 4478.4 - 4142.4 = ₹336

271. 2; Reqd ratio = 40 : 60 = 2 : 3

272. 3; Reqd fraction = $\frac{30000-22500}{30000} = \frac{1}{4}$

273. 4; Total number of candidates from Delhi, Mumbai and Kolkata = (22500 + 27500 + 17500) = 67500

Total number of candidates from Patna, Ranchi and Lucknow = (30000 + 20000 + 25000) = 75000

∴ Reqd ratio = 67500 : 75000 = 9 : 10

274. 5; Total number of female candidates

= (25 + 20 + 22.5 + 30 + 17.5 + 27.5) × 1000

$\times \frac{40}{100} = 142500 \times \frac{40}{100} = 57000$

Total number of female candidates from Mumbai = $57000 \times \frac{24}{100} = 13680$

Total number of candidates from Patna = 30000

∴ Reqd% = $13680 \times \frac{100}{30000} = 45.6\%$

275. 3; Total number of candidates from Lucknow = 25000

Female candidates from Ranchi = 57000

$\times \frac{6}{100} = 3420$

∴ Difference = (25000 - 3420) = 21580

276. 2; Total production of milk in UP

= (60 + 60 + 70 + 80 + 60 + 70) lakh litres

= 400 lakh litres = 4 crore litres

Total production of milk in Haryana

= (40 + 70 + 50 + 30 + 70 + 60) lakh litres

= 320 lakh litres = 3.2 crore litres

Total production of milk in MP

= (10 + 50 + 10 + 20 + 40 + 50) lakh litres

= 1.8 crore litres

Total production of milk in Bihar

= (20 + 30 + 20 + 50 + 50 + 40) lakh litres

= 2.1 crore litres

In UP the production of milk is the maximum during the six years.

277. 2; Total production of milk in 2009

= (10 + 20 + 50 + 70) lakh litres

= 1.5 crore litres

The milk used in milk products = $1.5 \times \frac{18}{100}$

= 27 lakh litres

Total production of milk in 2011

= (40 + 50 + 60 + 70) = 2.2 crore litres

The milk used in milk products = $2.2 \times \frac{12}{100}$

= 26.4 lakh litres

$\therefore$ Reqd % $= \frac{27}{26.4} \times 100 = 102.27\%$

278. 5; Total production of milk in 2012
= (40 + 50 + 60 + 70) = 2.2 crore litres
Total production of milk in 2007
= (10 + 20 + 40 + 60) = 1.3 crore litres

$\therefore$ Reqd % $= \frac{(2.2-1.3)}{1.3} \times 100 = 69.23\%$ more than the production of 2007.

279. 4; The milk used for milk products in 2010

$= (20 + 30 + 50 + 80) \times \frac{8}{100} = 14.4$ lakh litres

The milk used for milk products in 2007

$= 1.3 \times \frac{12}{100} = 15.6$ lakh litres

$\therefore$ Reqd ratio = 14.4 : 15.6 = 12 : 13

280. 1; The milk used for milk products in 2012

$= 2.2 \times \frac{30}{100} = 66$ lakh litres

The milk used for milk products in 2008

$= (30 + 50 + 60 + 70) \times \frac{20}{100} = 210 \times \frac{20}{100}$

= 42 lakh litres

$\therefore$ Reqd difference = (66 - 42) = 24 lakh litres

281. 4; Total production of all products in 2009
= (150 + 250 + 300 + 350) × 1000
= 1050000 tonnes
$\therefore$ Amount used in PDS supply

$= 1050000 \times \frac{20}{100} = 210000$ tonnes

$\therefore$ Amount used in Exports = $1050000 \times \frac{15}{100} = 157500$ tonnes

$\therefore$ Reqd difference = (210000 - 15750)
= 52500 tonnes

282. 4; Production of pulses during six years
= (150 + 50 + 200 + 150 + 250 + 350) × 1000 = 1150000 tonnes
Production of Wheat during six years = (250 + 150 + 400 + 100 + 150 + 300) × 1000
= 1350000 tonnes

$\therefore$ Reqd ratio = 1150000 : 1350000
= 115 : 135 = 23 : 27

283. 1; Total production in 2005 = (150 + 200 + 250 + 300) × 1000 = 900000 tonnes
Total production in 2006 = (50 + 150 + 250 + 350) × 1000 = 800000 tonnes
Total production in 2007 = (100 + 200 + 300 + 400) × 1000 = 1000000 tonnes
Total production in 2008 = (100 + 150 + 200 + 350) × 1000 = 800000 tonnes
Total production in 2009 = (150 + 250 + 300 + 350) × 1000 = 1050000 tonnes
Total production in 2010 = (250 + 300 + 350 + 400) × 1000 = 1300000 tonnes
$\therefore$ In year 2006 and 2008 the production is the minimum.

284. 1; Quantity of exports **in 2005**

$= 900000 \times \frac{40}{100} = 360000$ tonnes

Quantity of exports in **2006**

$= 800000 \times \frac{20}{100} = 160000$ tonnes

Quantity of exports in **2007**

$= 1000000 \times \frac{25}{100} = 250000$ tonnes

Quantity of exports **in 2008**

$= 800000 \times \frac{30}{100} = 240000$ tonnes

Quantity of exports **in 2009**

$= 1050000 \times \frac{15}{100} = 157500$ tonnes

Quantity of exports **in 2010**

$= 1300000 \times \frac{20}{100} = 260000$ tonnes

Quantity of exports is maximum in the year 2005.

285. 1; Quantity of PDS supply **in 2005**

$= 900000 \times \frac{12}{100} = 108000$ tonnes

Quantity of PDS supply in **2006**

$= 800000 \times \frac{18}{100} = 144000$ tonnes

Quantity of PDS supply **in 2007**

$= 1000000 \times \frac{16}{100} = 160000$ tonnes

Quantity of PDS supply **in 2008**

$= 800000 \times \frac{14}{100} = 112000$ tonnes

Quantity of PDS supply **in 2009**

$= 1050000 \times \frac{20}{100} = 210000$ tonnes

Quantity of PDS supply **in 2010**

$= 1300000 \times \frac{22}{100} = 286000$ tonnes

In 2005, the quantity of PDS supply is the minimum.

286. 2; Total number of graduate employees working in Department A

$= 8000x = 8000 \times \frac{12.5}{100} \times \frac{27}{100} = 270$

287. 4; Total number of non - graduate employees

$= \frac{8000}{100 \times 100}\{12.5 \times 73 + 16 \times 55 + 22 \times 67.5$
$+ 18.5 \times 45 + 14 \times 65 + 17 \times 52.5\}$
$= 0.8(912.5 + 880 + 1485 + 832.5 + 910 + 892.5\} = 0.8 \times 5912.5 = 4730$

288. 3; Total number of graduate employees working in Department E

$= 8000 \times \frac{14}{100} \times \frac{35}{100} = 392$

$\therefore$ Read% $= \frac{392}{8000} \times 100 = 4.9\%$

289. 2; Total number of graduate? employees working in Department D

$= 8000 \times \frac{18.5}{100} \times \frac{55}{100} = 814$

Total number of non - graduate employees working in Department D

$= 8000 \times \frac{18.5}{100} \times \frac{45}{100} = 666$

$\therefore$ Reqd % $= \frac{814 - 666}{6000} \times 100$

$= \frac{14800}{666} = 22.22\%$ more

290. 2; Total number of non - graduate employees = 4730

Total number of graduate employees
= 8000 - 4730 = 3270

$\therefore$ Average $= \frac{3270}{6} = 545$

291. 3; Total number of bikes = 43470 + 84560 + 56760 + 78650 + 69000 + 94880 = 427320

$\therefore$ Average $= \frac{427320}{6} = 71220$

= 71.22 thousand

292. 2; Total number of bikes sold by Company D

$= 78.65 \times \frac{9}{11} = 64.35$ thousand $= 64350$

293. 1; Total number of unsold bikes of Company

A $= 43470 \times \frac{2}{9} = 9660$

Total number of unsold bikes of Company E

$= 69000 \times \frac{2}{5} = 27600$

Reqd % $= \frac{9660}{27600} \times 100 = 35\%$

294. 3; Difference $= 94880 \times \frac{(5-3)}{8}$

$= 94880 \times \frac{2}{5} = 23720$

295. 2; Total number of bikes produced by all companies together = 427320

$\therefore$ Total number of bikes sold by all companies together

$= 43470 \times \frac{7}{9} + 84560 \times \frac{5}{7} + 56760 \times \frac{5}{6} + 78650$

$\times \frac{9}{11} + 69000 \times \frac{3}{5} + 94880 \times \frac{5}{8}$

= 33810 + 60400 + 47300 + 64350 + 41400 + 59300 = 306560

$\therefore$ Reqd % $= \frac{306560}{427320} \times 100 = 71.74\% \approx 72\%$

296. 3; Number of females whose favourite fruit is Mango $= \frac{6800 \times 30}{100} \times \frac{5}{8} = 1275$

297. 1; Number of females whose favourite fruit

is Apple = $\frac{6800\times18}{100}\times\frac{5}{6}=1020$

Number of females whose favourite fruit is Guava = $\frac{6800\times11}{100}\times\frac{3}{4}=561$

$\therefore$ Reqd % = $\frac{1020-561}{561}\times100=\frac{45900}{561}$

= 81.81% more

48. 2; Number of males whose favourite fruit is Grapes = $\frac{6800\times12}{100}\times\frac{5}{8}=510$

Number of females whose favourite fruit is Orange = $\frac{6800\times14}{100}\times\frac{4}{7}=544$

$\therefore$ Reqd ratio = 510 : 544 = 255 : 272

299. 4; Number of males whose favourite fruit is Mango = $\frac{6800\times30}{100}\times\frac{3}{8}=765$

Number of females whose favourite fruit is Guava = $\frac{6800\times11}{100}\times\frac{3}{4}=561$

$\therefore$ Difference = 765 - 561 = 204

300. 3; Reqd ratio = $\frac{408}{425}$ = 408 : 425

301. 5; Average price of vegetables in Agra in January = $\frac{1}{4}\times(20+40+60+70)$ = `47.5

Average price of vegetables in Agra in February = $\frac{1}{4}\times(30+50+60+70)$ = `52.5

Average price of vegetables in Agra in March = $\frac{1}{4}\times(10+40+70+80)$ = `50

Average price of vegetables in Agra in April = $\frac{1}{4}\times(20+40+50+60)$ = `42.5

$\therefore$ Average price of vegetables in Agra in May = $\frac{1}{4}\times(30+50+70+80)$ = `57.5

In May, the average price of vegetables in Agra is the maximum.

302. 1; Rate of Beans in Agra in May = `50

Rate of Onion in Mathura in April = $40\times\frac{4}{3}$ = `53.33

$\therefore$ Reqd % = $50\times\frac{100}{53.33}=93.75\%$

303. 4; Price of Potato in Agra in January = `20

Price of Potato in Agra in May = `30

$\therefore$ Percentage increase in rate = $\frac{30-20}{20}\times100=50\%$

304. 3; Rate of Tomato in Agra in January = `70

Rate of Potato in Mathura in February = $60\times\frac{6}{5}$ = `72

$\therefore$ Reqd ratio = 70 : 72 = 35 : 36

305. 2; Average rate of Onion in Agra during the five months = $\frac{1}{5}\times(60+70+80+40+70)$ = `64

Average rate of Potato in Agra during the five months = $\frac{1}{5}\times(20+60+40+50+30)$ = `40

Average rate of Tomato in Agra during the five months = $\frac{1}{5}\times(70+30+70+60+80)$ = `62

Average rate of Beans in Agra during the five months = $\frac{1}{5}\times(40+50+10+20+50)$ = `34

Onion has the maximum average rate in Agra during the five months.