

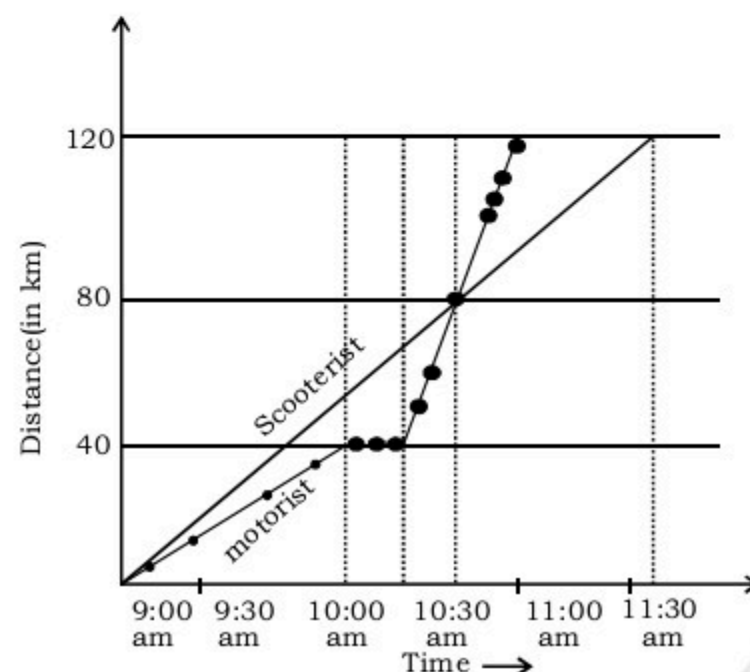


STATISTICS & DATA INTERPRETATION (D.I.)

EXERCISE

Directions(1-4):- A motorist and a scooterist made a journey of 120 km at the same time and from the same place. The graph shows the progress of the journey made by each person. Study the graph and answer the questions.

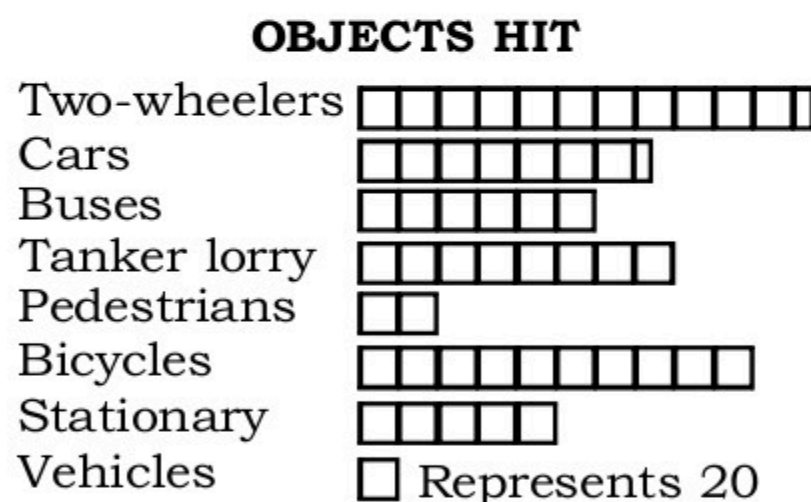
(SSC Assistant Grade III Exam 05.02.2012)



- At what time did the motorist meet the scooterist ?
(a) 10: 30 am (b) 10: 45 am
(c) 10 : 15 am (d) 10 : 20 am
- What was the average speed of the scooterist during the journey ? (in kmph)
(a) 45 (b) 48 (c) 42 (d) 46
- The scooterist completes the journey (in hours) :
(a) 3 (b) 2 (c) $2\frac{1}{2}$ (d) $3\frac{1}{2}$
- How far from the start, did the motorist meet the scooterist? (in km)
(a) 75 (b) 70 (c) 90 (d) 80

Directions(5-9): The following is a horizontal bar diagram showing the accidents in which two-wheelers are involved with other objects. Study the diagram and answer the question.

(SSC DEO & LDC Exam 21.10.2012)

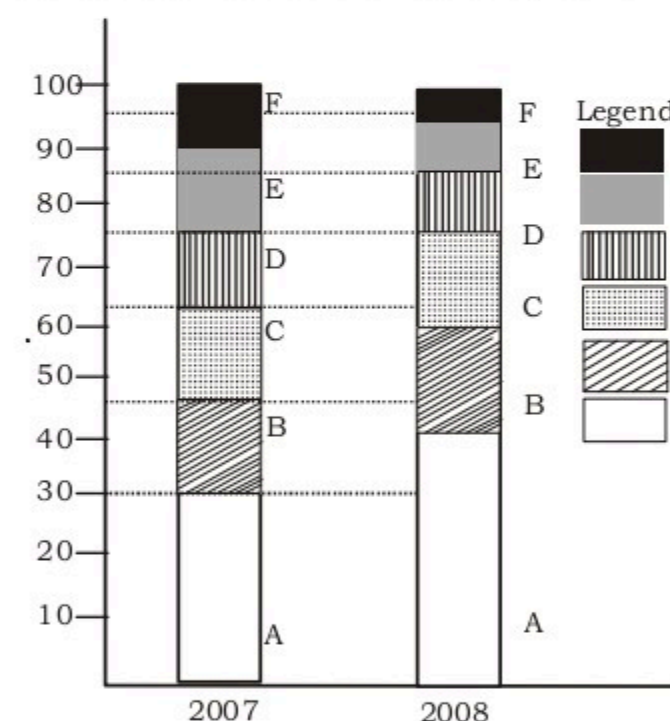


- The difference in percentage between the accidents involving two-wheelers and other objects is respectively.
(a) 77% more (b) 77% less
(c) 54% more (d) 54% less
- 60% of the accidents are involved due to
(a) cars, buses, tanker lorry and pedestrians
(b) cars, tanker lorry, bicycles and stationary vehicles
(c) two-wheelers, cars, buses and stationary vehicles
(d) two-wheelers, cars, buses and tanker lorry.
- If the data of the bar diagram is represented by a pie-chart, and the angle of a sector of the pie-chart is 36° , then this sector represents the accidents involving
(a) pedestrians (b) bicycles
(c) buses (d) stationary vehicles.
- The percentage of accidents in which pedestrians and cyclists are involved is
(a) 24% (b) 6% (c) 60% (d) 20.4%
- the percentage by which the accidents involving buses is less than the accidents involving tanker lorry is
(a) 6% (b) 4% (c) 40% (d) 28%

Directions(10-14): The bar chart given below shows the percentage distribution of the production of various models of a mobile manufacturing company in 2007 and 2008. The total production in 2007 was 35 lakh mobile phones and in 2008 the production was 44 lakh. Study the chart and answer the following questions.

(SSC CGL Tier II Exam 16.09.2012)

Percentage of six different types of mobiles manufactured by a company over two year

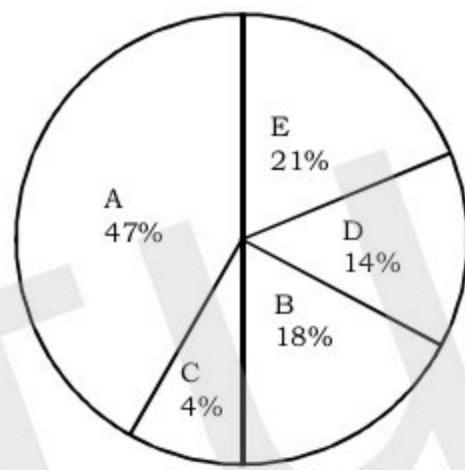


10. Total number of mobiles of models A, B and E manufactured in 2007 was
 (a) 24,50,000 (b) 22,75,000
 (c) 21,00,000 (d) 19,25,000
11. For which models was the percentage variation in production from 2007 to 2008 the maximum?
 (a) B and C (b) C and D
 (c) D and E (d) A and B
12. What was the difference in the number of B type mobiles produced in 2007 and 2008 ?
 (a) 3,55,000 (b) 2,70,000
 (c) 2,25,000 (d) 1,75,000
13. If the percentage production of A type mobiles in 2008 as same as that in 2007, then the number of A type mobiles produced in 2008 would have been
 (a) 14,00,000 (b) 13,20,000
 (c) 11,70,000 (d) 10,50,000
14. If 85% of the D type mobile produced in each year were sold by the company, how many D type mobiles remained unsold ?
 (a) 76,500 (b) 93,500
 (c) 1,18,500 (d) 1,22,500

Directions(15-17) : In the following questions, study the two pie-charts and answer the questions.

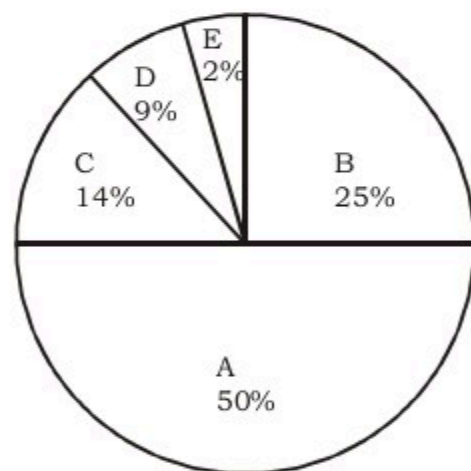
(SSC CGL Tier I Exam 21.04.2013)

APRIL MONTHS'S SALARY : ₹ 24000



A - Education
 B - Savings
 C - Grocery
 D - Electricity and Phone Bills
 E - Miscellaneous

MAY MONTHS'S SALARY : ₹ 25000

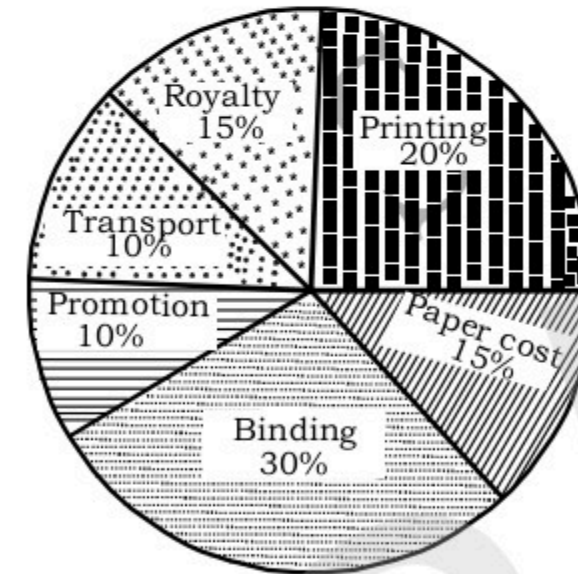


15. What is the percent increase in Education in May month than April month ?
 (a) 9.56% (b) 12.35% (c) 20% (d) 10.82%

16. The ratio of amount spent for savings in April month's salary and miscellaneous in May month's salary is
 (a) 216 : 25 (b) 217 : 26
 (c) 205 : 13 (d) 235 : 50
17. From the salary of May, the amount spent on Grocery and Electricity are:
 (a) ₹ 6250, ₹ 3360 (b) ₹ 960, ₹ 5040
 (c) ₹ 3500, ₹ 2250 (d) ₹ 2160, ₹ 480

Directions(18-19):- Various expenditures incurred by a publishing company for publishing a book in 2011 are given below. Study the chart and answer the questions.

(SSC LDC Exam 20.10.2013)

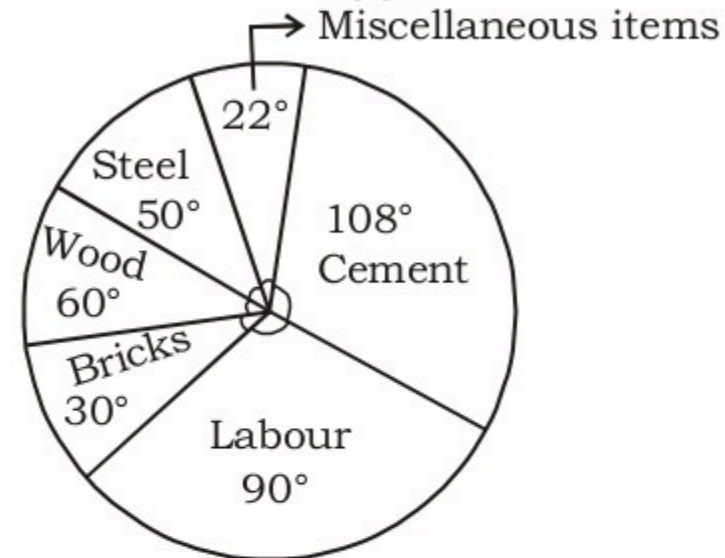


18. Price of a book is 20% above cost price. If there marked price is ₹ 180, then the cost of paper for a single copy (₹) is.
 (a) 44.25 (b) 36 (c) 22.50 (d) 42
19. Royalty of a book is less than the printing cost by
 (a) 25% (b) 5% (c) $33\frac{1}{3}\%$ (d) 20%

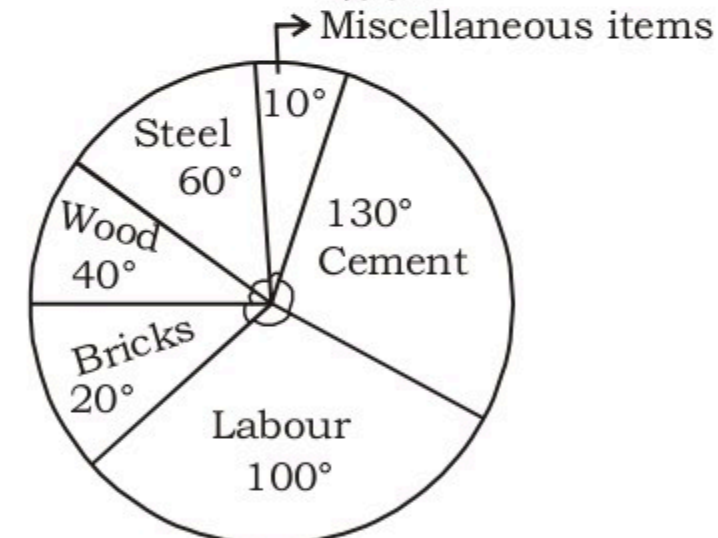
Directions(20-22): Pie-charts show the expenses on various heads show the expenses on various heads in construction of a house. Study the pie-chart

(SSC CGL Tier Re-Exam 21.04.(2013)2014)

1991



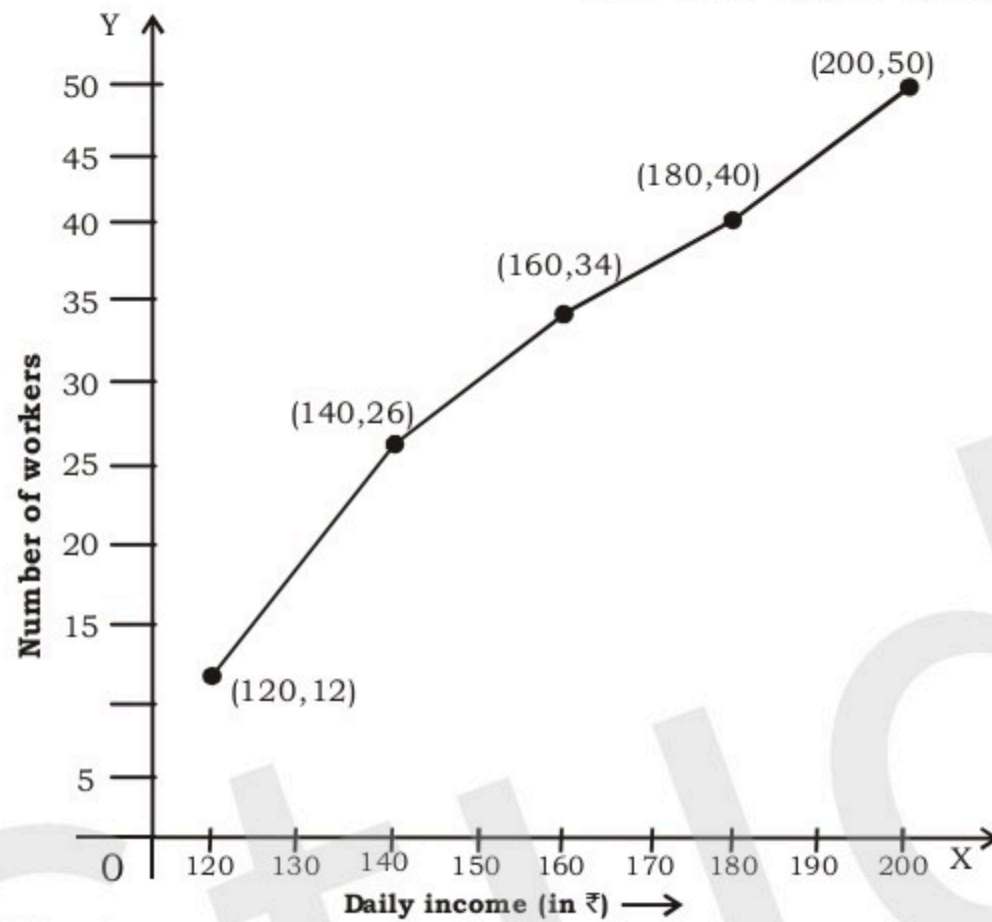
2001



20. What percentage of the total amount is being spent on cement in 1991?
 (a) 18% (b) 30% (c) 48% (d) 60%
21. The percentage increase in the amount spent on labour from 1991 to 2001, given that the total amount spent on the construction of the house is ₹ 360000 in 1991 and 864000 in 2001 is;
 (a) $3\frac{1}{9}\%$ (b) $43\frac{1}{3}\%$ (c) $41\frac{2}{3}\%$ (d) $166\frac{2}{3}\%$
22. If the total cost of constructing the house is ₹ 3,60,000 in 1991 and ₹ 8,64,000 in 2001, what is the amount spent on Steel in 1991 and 2001 ?
 (a) ₹ 2,16,000, ₹ 4,32,000
 (b) ₹ 60,000, ₹ 84,000
 (c) ₹ 80,000, ₹ 2,10,000
 (d) ₹ 50,000, ₹ 1,44,000

Directions(23-24):- The graph given below shows the daily income of 50 workers in a factory. Study the graph and answer the questions.

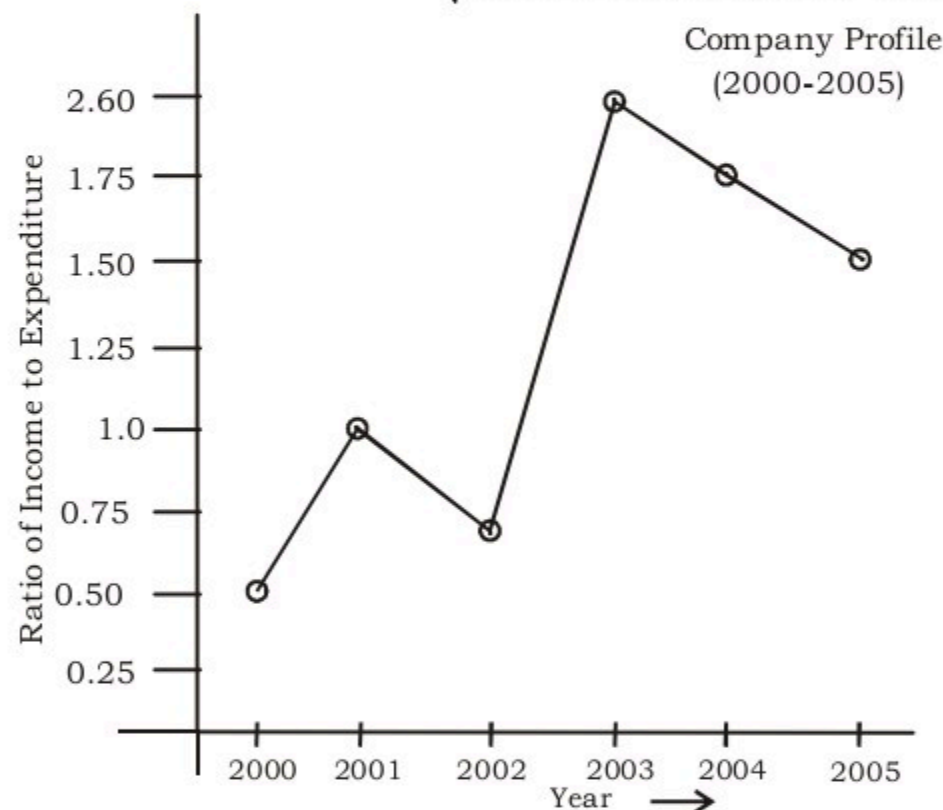
(SSC MTS Exam 17.03.2013)



23. What percentage of the factory workers earn between ₹ 150 and ₹ 180 ?
 (a) 6% (b) 16% (c) 12% (d) 20%
24. The median wages in the factory is
 (a) ₹ 140 (b) ₹ 138 (c) ₹ 150 (d) ₹ 160

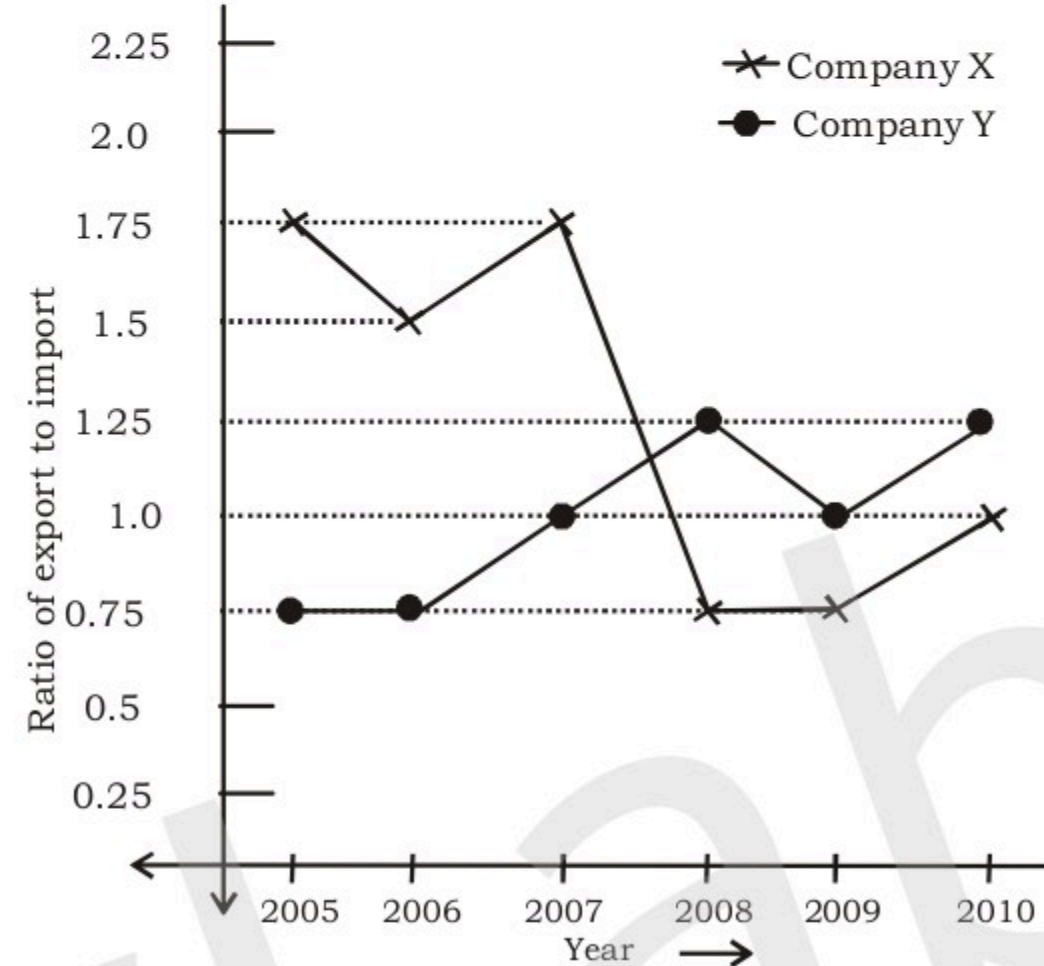
Directions(25-26): Study the following graph and answer the questions.

(SSC CGL Tier I Exam 21.04.2013)



25. Find the percentage decrease in income from 2001 to 2002.
 (a) 50% (b) 33%
 (c) 25% (d) Data inadequate
26. If the income show positive growth every year throughout the period(2000-2005), then in how many year the expenditure shows a positive growth?
 (a) 5 (b) 3 (c) 4 (d) 2

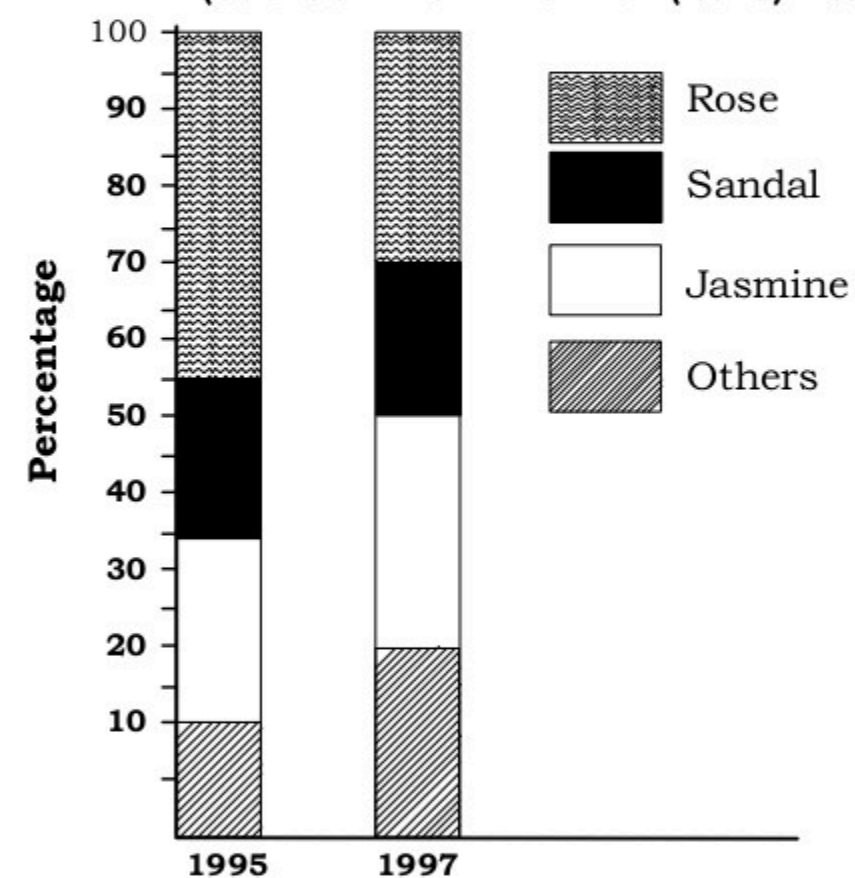
Directions(27-28): Study the following graph and answer the questions.



27. If the imports of company X in 2007 were increased by 40% what would be the ratio of exports to the increased imports ?
 (a) 1.25 (b) 1.75 (c) 0.25 (d) 0.75
28. In 2005, the exports of company X were double that of company Y in that year. If the imports of company X during the year were ₹ 180 crores, what was the amount(in crore ₹) of imports of company Y during the year ?
 (a) 212 (b) 210 (c) 315 (d) 282

Directions(29-31): The production figures of a perfume manufacturer are given in the form of percentage in sub-divided bar diagram. Study the diagram and answer the questions.

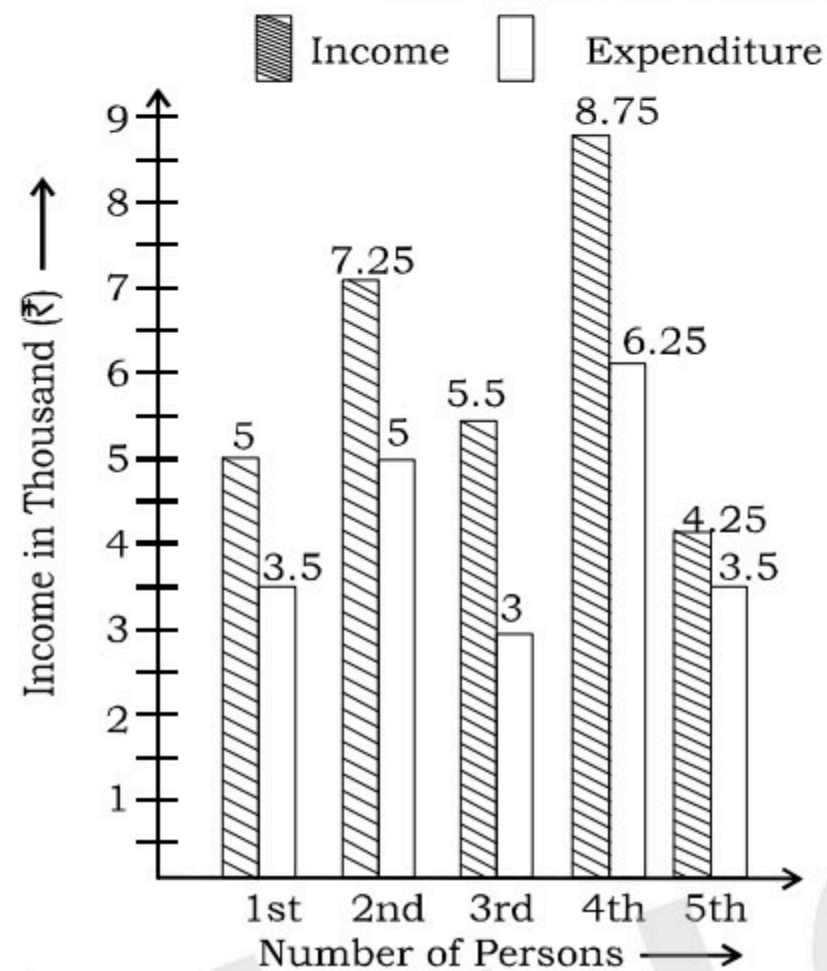
(SSC CGL Tier I Re-Exam(2013) 20.07.2014)



29. What is the ratio of percentage production of rose perfume during 1995 to that during the year 1997?
(a) 4 : 3 (b) 3 : 2 (c) 2 : 3 (d) 5 : 4
30. What is the percentage of production of sandal perfume during the year 1995 over that during 1997?
(a) 100 (b) 1 (c) 0 (d) 50
31. What is the production of jasmine perfume in the year 1997 ? Given that during the year 1997 total perfumed production was 5000 units.
(a) 1200 (b) 2500 (c) 2000 (d) 1500

Directions (32-33):- In the following questions, a graphical representation of income and expenditure of 5 persons during the month of January has been given. Read the graph and answer the questions.

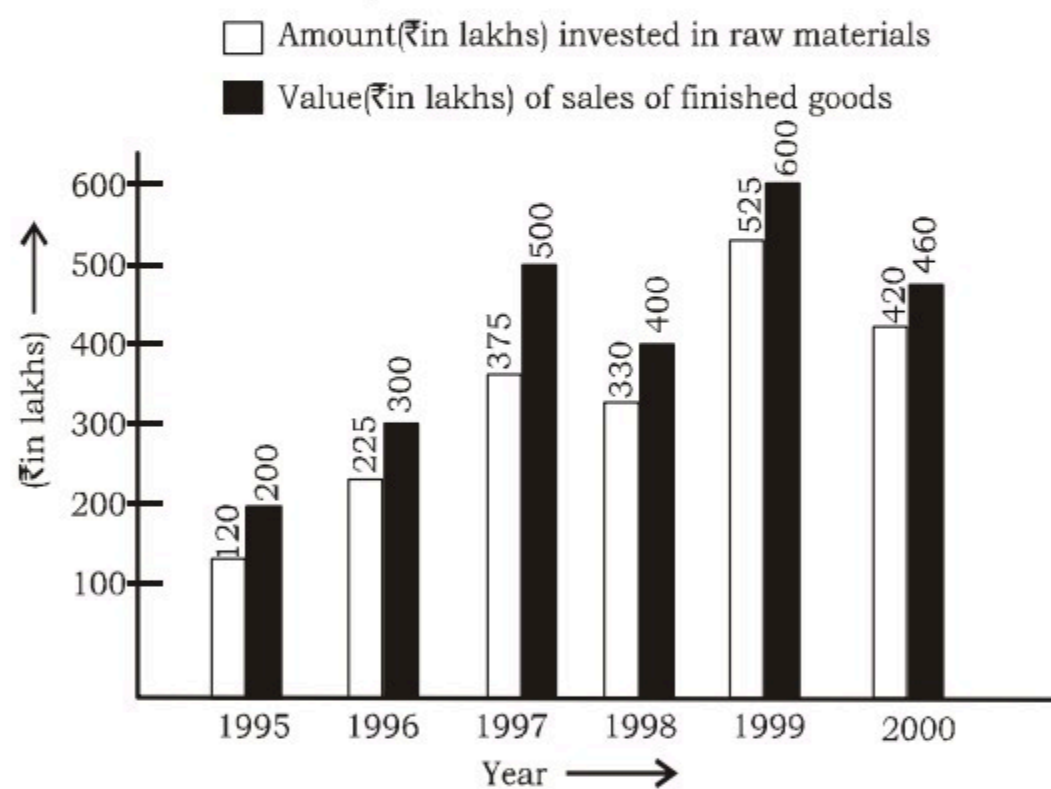
(SSC Constable(GD) Exam 12.05.2013)



32. What is the average income of five persons per month?
(a) ₹ 5775 (b) ₹ 6000
(c) ₹ 6150 (d) ₹ 6250
33. What is the income range of the persons ?
(a) 4.25 - 8.75 (b) 5.5-8.75
(c) 4.25-7.25 (d) 5-8.75

Directions(34-35): Study the following graph and answer the given questions

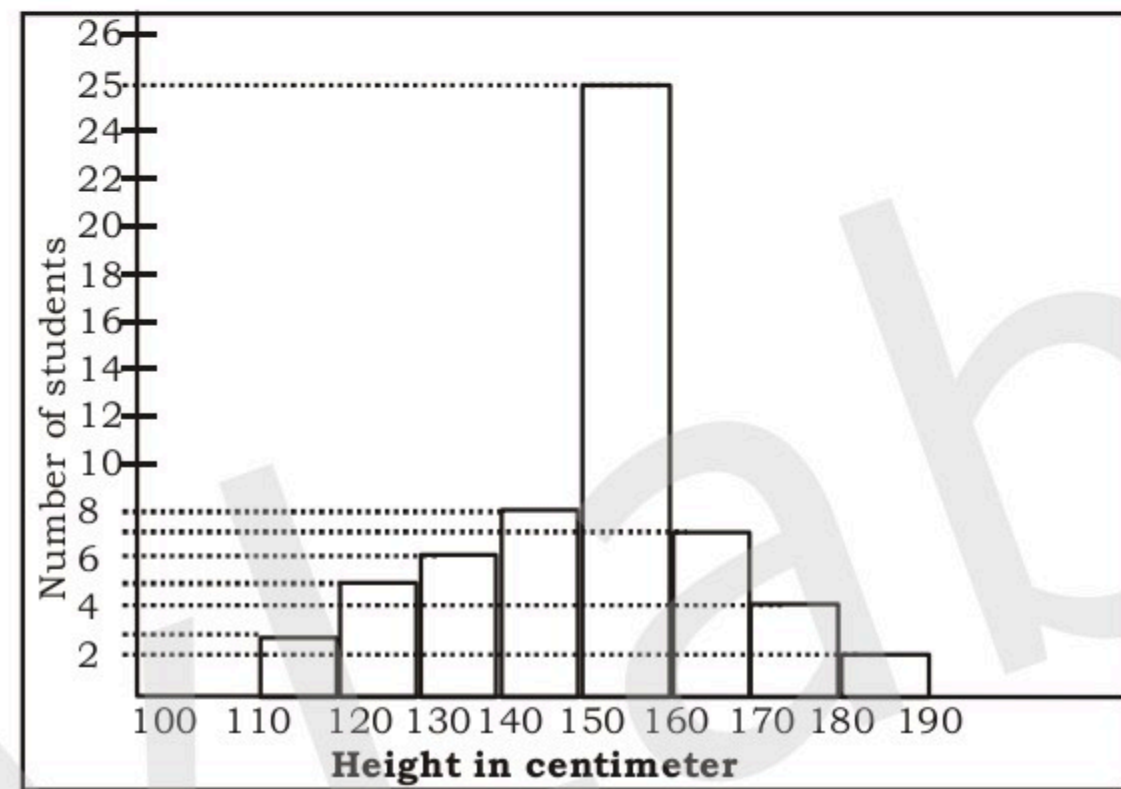
(SSC CHSL DEO & LDC Exam 27.10.2013)



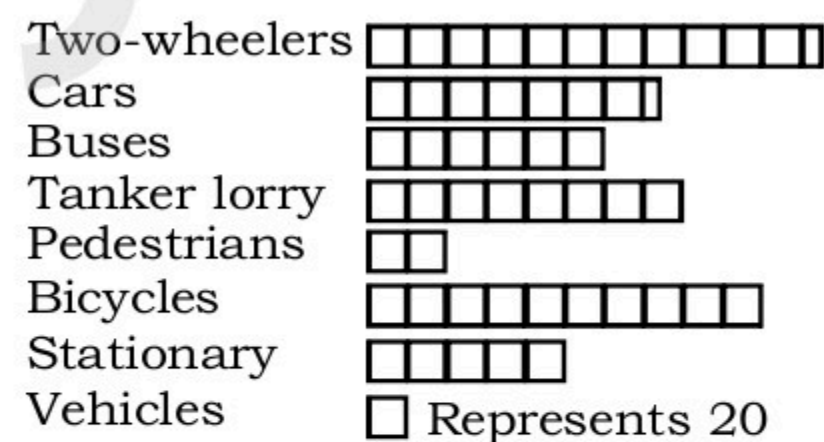
34. In which year, there has been a maximum percentage increase in the amount invested in raw materials as compared to the previous year ?
(a) 1996 (b) 1997 (c) 1998 (d) 1999
35. What was the difference between the average amount invested in raw materials during the given period and the average value of sales of finished goods during this period ?
(a) ₹ 62.5 lakhs (b) ₹ 68.5 lakhs
(c) ₹ 71.5 lakhs (d) ₹ 77.5 lakhs

Directions(36-38): Following histogram depicts the range of heights of students in a class of 60 students. Study the same and answer the questions.

(SSC CGL Tier II Re-Exam 29.09.2013)



36. The number of students having height more than 150 cms is
(a) 25 (b) 46 (c) 38 (d) 25



37. The number of students with their heights between 130 to 150 cms is
(a) 8 (b) 6 (c) 14 (d) 22
38. Group which contains maximum number of students is
(a) 130-140 (b) 150-160
(c) 140-150 (d) 160-170

Directions(39): The table given below shows production of five types of cars by a company from the year 1998 to 2003. Study the table and answer the question.

(SSC CGL Tier I Exam 21.04.2013)

Years Types	1998	1999	2000	2001	2002	2003	Total
P	10	18	16	15	11	18	88
Q	14	12	13	12	11	14	76
R	16	20	14	13	15	12	90
S	5	8	12	14	20	31	90
T	26	18	24	20	23	21	132
Total	71	76	79	74	80	96	476

39. In which year the production of cars of all types taken together was approximately equal to the average of the total production during the period;

- (a) 1999 (b) 2000 (c) 2002 (d) 1998

Directions(40-41): Study the following table and answer the questions.

(SSC CHSL DEO & LDC Exam 27.10.2013)

Years	Percentage of Candidates Qualified Under discipline					Total Number of Candidates qualified
	Arts	Science	Commerce	Agriculture	Engineering	
2006	24	40	19	09	08	780
2007	15	42	18	13	12	650
2008	20	45	20	08	07	500
2009	15	45	16	14	10	620
2010	19	35	15	19	12	900
2011	18	42	14	12	14	850

40. The decrease in the number of candidates qualified under Arts discipline from 2010 to 2011 was

- (a) 11 (b) 18 (c) 42 (d) 69

41. The difference in the average number of candidates qualified in Science discipline per year from 2006 to 2008 and the average number of candidates qualified in the same discipline from 2009 to 2011 was

- (a) 47 (b) 57 (c) 74 (d) 141

Directions (42-43):- Study the table and answer the questions.

(SSC CHSL DEO & LDC Exam 10.11.2013)

Height (in cm)	Number of Girls
Less than 140	4
Less than 145	11
Less than 150	29
Less than 155	40
Less than 160	46
Less than 165	51

42. The number of girls whose height is above 150 cm is

- (a) 22 (b) 29 (c) 86 (d) 97

43. Average height(in cm) of the girls whose heights are 155 cm and above is about

- (a) 158.7 (b) 159.8 (c) 160.4 (d) 162.6

Directions(44-45): The table shows the percentage of total population of a city in different age groups . Study the table and answer the questions.

(SSC CGL Tier I Exam 11.05.2013)

Age group	Percent
Up to 15	20.00
16-25	18.25
26-35	16.75
36-45	16.25
46-55	15.00
56-65	12.50
66 and above	1.25

44. If there are 22 million people below 36 years, then the number of people (in millions) in the age group (56-65) is

- (a) 5 (b) 5.5 (c) 3 (d) 3.5

45. If the difference between the number of people in the age groups(46-55) and (16-25) is 0.975 million, then the total population(in millions) of the city is

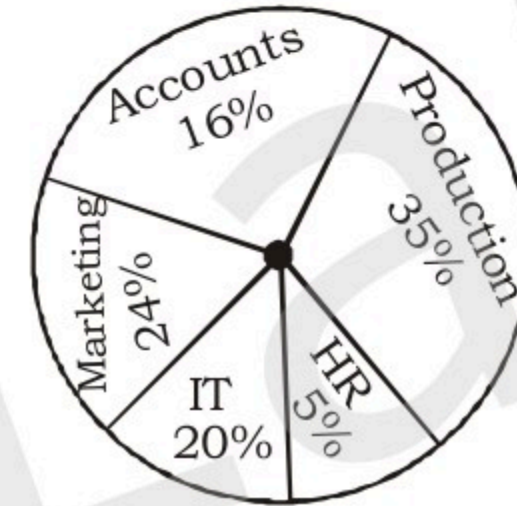
- (a) 27 (b) 30 (c) 22 (d) 25

Directions(46-49): Study the pie-chart and table given below and answer the questions.

(SSC CAPF's SI & CISF DP Exam 22.06.2014)

Details of percentage of employees working in various departments in an organization and number of males among them.

Total number of employees =800,



Department	No. of Males
Production	245
HR	12
IT	74
Marketing	165
Accounts	93

46. The respective ratio between the number of females working in HR department to the total number of employees working in the HR department is

- (a) 7 : 10 (b) 8 : 17 (c) 8 : 19 (d) 5 : 17

47. The percentage of the number of male employees working in Marketing department to the total number of employees in Marketing department is

- (a) 84% (b) 86% (c) 88% (d) 91%

48. The percentage of females working in IT department to the total number of employees working in the organization is

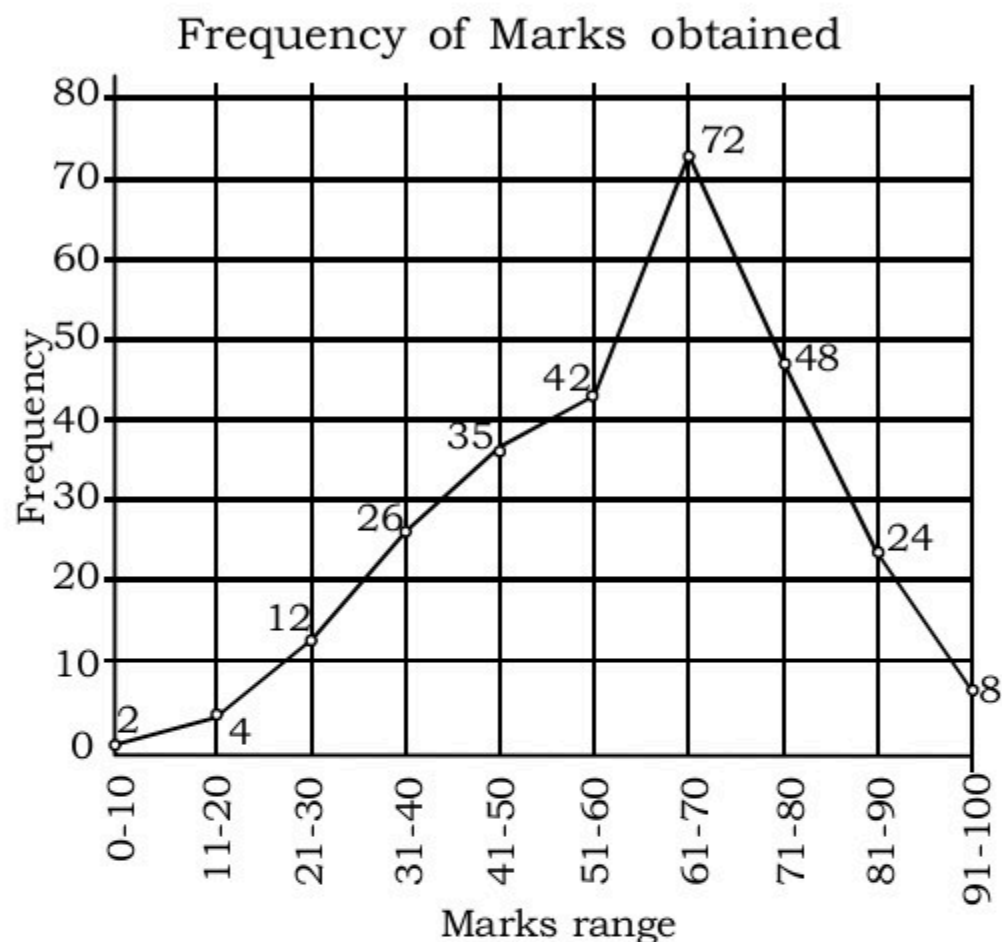
- (a) 10.25% (b) 10.75% (c) 15.25% (d) 15.75%

49. The ratio of number of males in marketing department to the number of females working in that department is

- (a) 52 : 7 (b) 52 : 9 (c) 55 : 7 (d) 55 : 9

Directions(50-53) : The marks obtained by 273 examinees are shown by the frequency polygon. Given that mean marks is 59.5. Study the frequency polygon and answer the given questions.

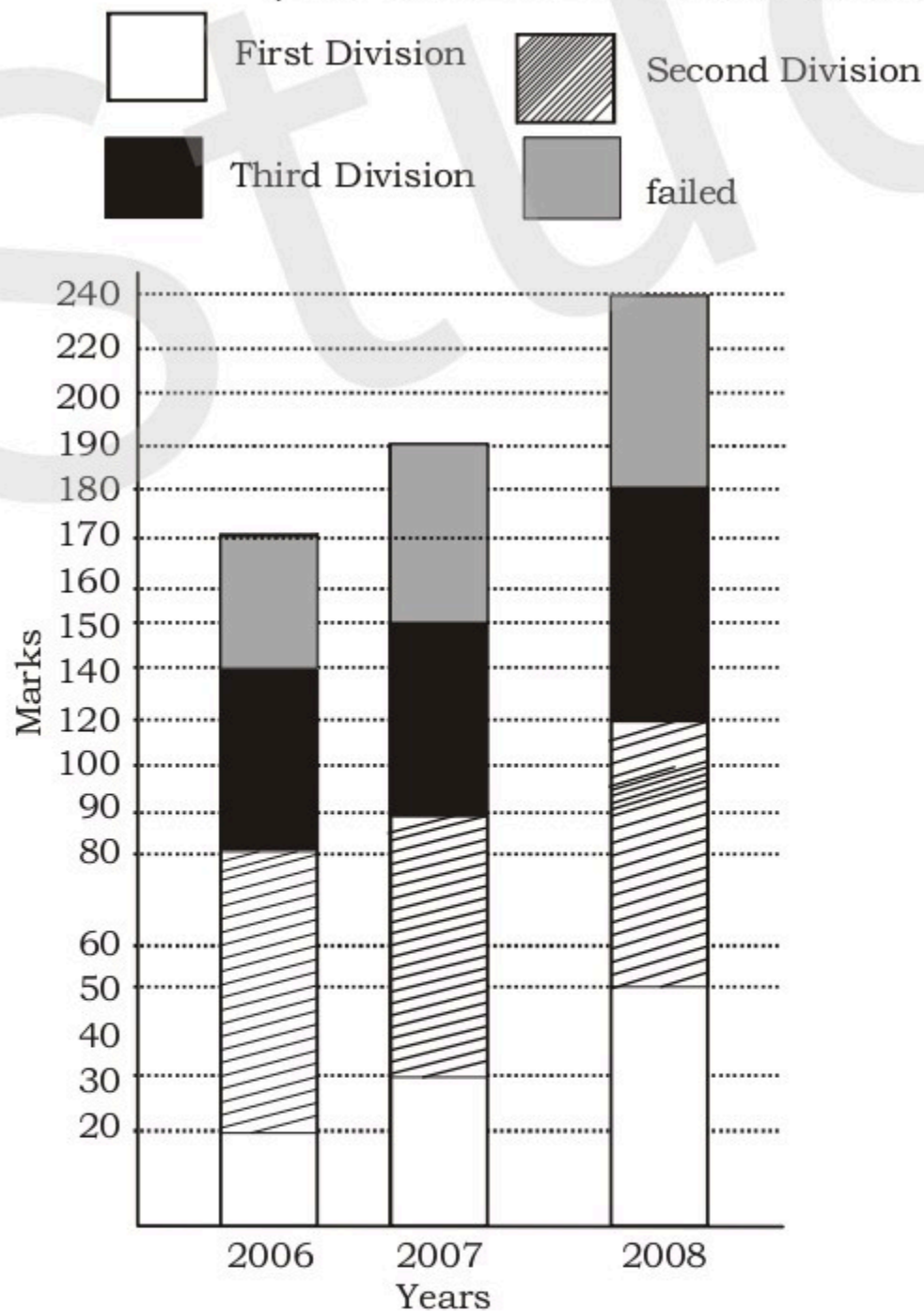
(SSC CHSL DEO & LDC Exam 16.11.2014)



50. The number of examinees getting more than average marks is
(a) 72 (b) 105 (c) 152 (d) 164
51. Percentage of the students who get above 80% marks is
(a) 9.81 (b) 10.53 (c) 11.28 (d) 11.72
52. Percentage of the students who got marks above 60% and below 80% is
(a) 43.95 (b) 48.39 (c) 51.06 (d) 56.84
53. If 40 is the pass marks, percentage of students failed is
(a) 14.56 (b) 15.84 (c) 16.11 (d) 17.25

Directions(54-57): The subdivided bar diagram given below depicts the result of B.com students of a college for 3 years. Study the graph and answer the given questions.

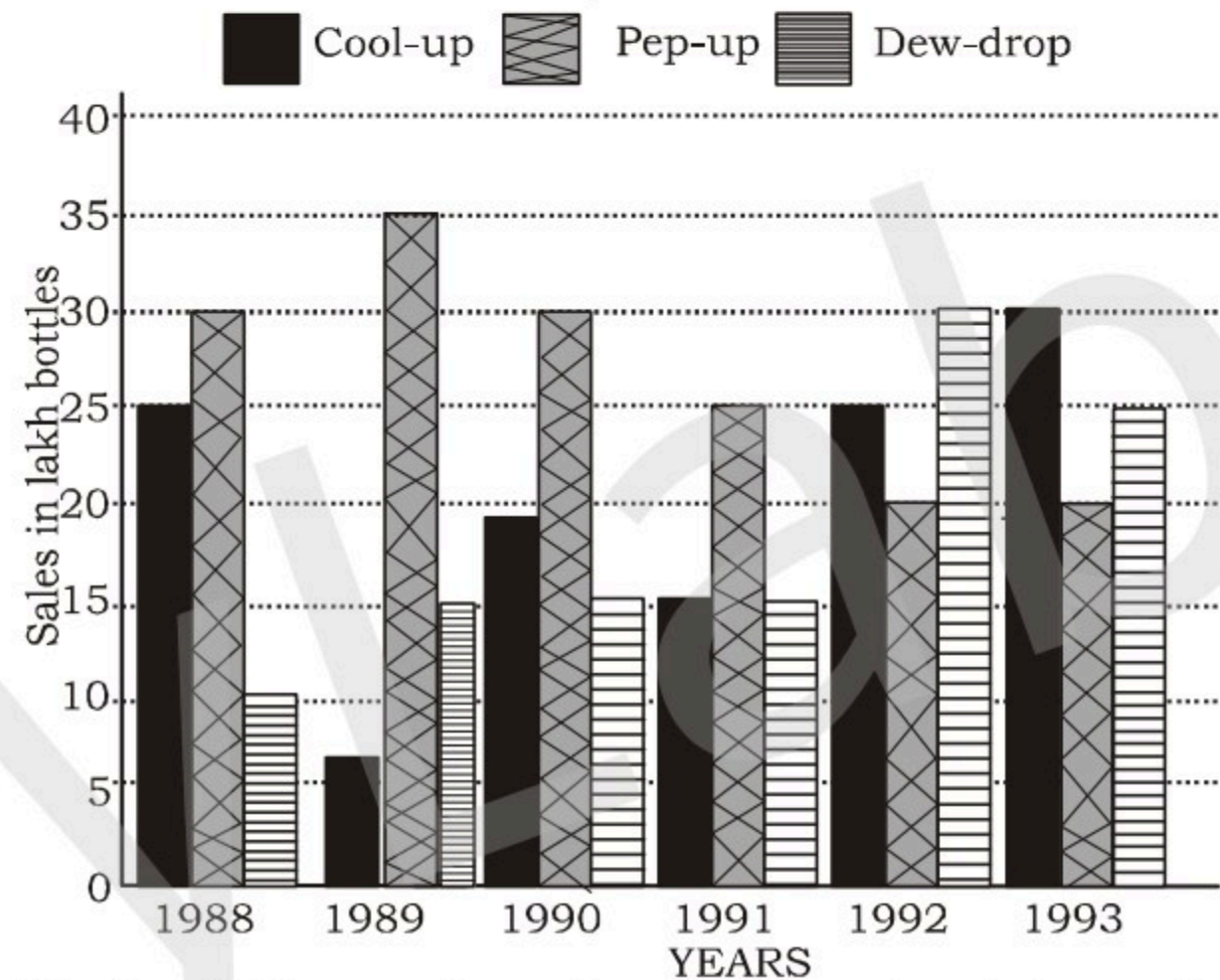
(SSC CHSL DEO Exam 16.11.2014)



54. How many percent of students passed in first division in 2007?
(a) $15\frac{15}{19}\%$ (b) $11\frac{13}{17}\%$ (c) $16\frac{2}{3}\%$ (d) $12\frac{1}{2}\%$
55. What was the passing percentage in 2008 ?
(a) $33\frac{1}{3}\%$ (b) $82\frac{6}{17}\%$ (c) 75% (d) 78%
56. What was the number of third divisions in 2006?
(a) 60 (b) 140 (c) 59 (d) 120
57. In which year, did the college have the best result for B. com ?
(a) 2007 and 2008 (b) 2008
(c) 2007 (d) 2006

Directions(58-63): Study the graph and answer the questions.

(SSC CGL Tier I Exam 19.10.2014)



58. In which year the sale of cool-up is minimum ?
(a) 1990 (b) 1992
(c) 1993 (d) None of the above
59. In case of which soft drink was the average annual sale maximum during the period 1988-1993?
(a) pep-up only (b) pep-up and Dew-drop
(c) cool-up only (d) cool-up and Pep-up
60. what was the approximate percent drop in the sale of pep-up in 1990 over its sale in 1989 ?
(a) 5 (b) 14 (c) 12 (d) 20
61. What was the approximate percent increase in sales of Cool-up in 1990 over its sales in 1989 ?
(a) 100 (b) 50 (c) 216 (d) 150
62. In which year sale of Dew-drop is maximum ?
(a) 1988 (b) 1992 (c) 1989 (d) 1993
63. In case of which soft drink was the average annual sale minimum during the period 1988-1993?
(a) Pep-up only (b) Cool-up only
(c) Dew-drop only (d) Dew-drop and Cool-up

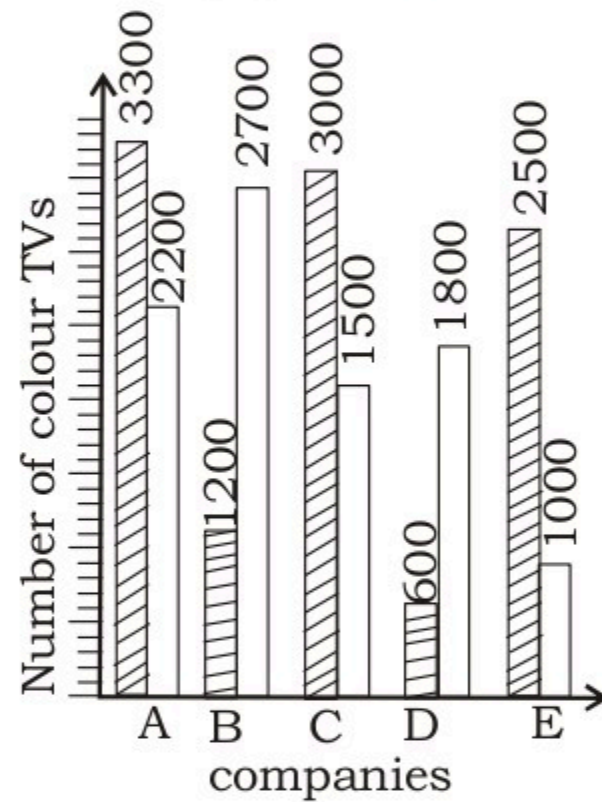
Directions(64-67): Study the bar diagram and answer the following questions.

(SSC CAPF & SI CISF ASI & DP Exam 22.06.2014)

**Demand and production of colour
TV of five companies A, B, C, D and E.**

(Number on the top of a bar is the number of colour TVs)

▨ Demand □ Production

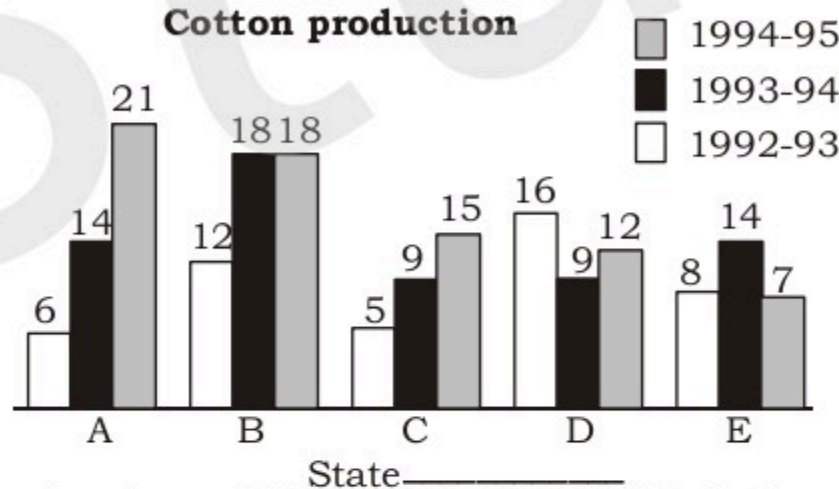


64. The ratio of the number of companies having more demand than production to the companies having more production than demand is
(a) 2 : 3 (b) 4 : 1 (c) 1 : 1 (d) 3 : 2
65. The difference between average demand and average production of the five companies taken together is
(a) 1400 (b) 400 (c) 280 (d) 138
66. The percentage of the demand of company D as compared to the demand of company E is
(a) 12 (b) 24 (c) 20 (d) 30
67. The ratio of average demand to average production of companies B and D is
(a) 1 : 5 (b) 2 : 5 (c) 3 : 5 (d) 4 : 5

Directions (68-71):- Study the graph carefully and answer the following questions.

(SSC DEO & LDC Exam 02.11.2014)

Cotton production



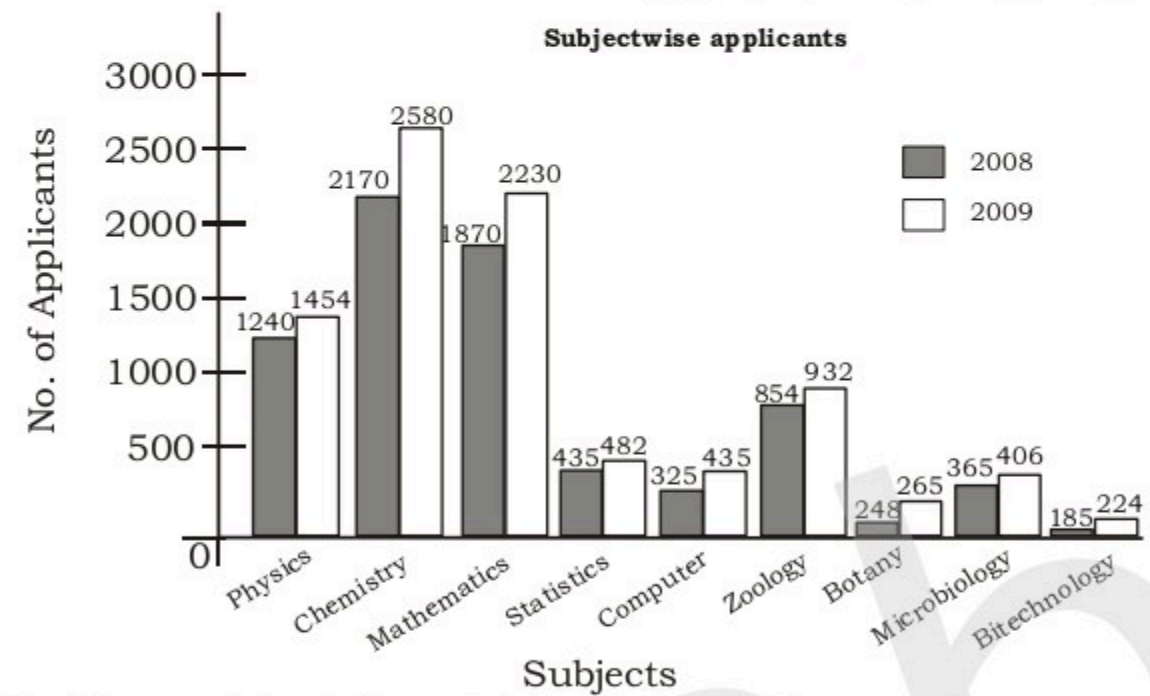
68. The production of State D in 1993-94 is how many times its production in 1994-95?
(a) 1.33 (b) 0.75 (c) 0.56 (d) 1.77
69. Which of the following statement is false ?
(a) State A and E showed the same production in 1993-94.
(b) There was no improvement in the production of cotton in state B during 1994-95
(c) State A has produced maximum cotton during the given period
(d) Production of state C and D together is equal to that of state B during 1993-94,

70. How many state showing above average production in 1992-93 showed below average production in 1993-94 ?
(a) 4 (b) 2 (c) 3 (d) 1

71. What is the average production of the five states in the year 1994-95 taken together ?
(a) 12.3 (b) 14.6 (c) 15.6 (d) 16.3

Directions(72-76): The subject wise number of applicants for the year 2008 and 2009 in a college is given in the following chart. Study the graph and answer the questions.

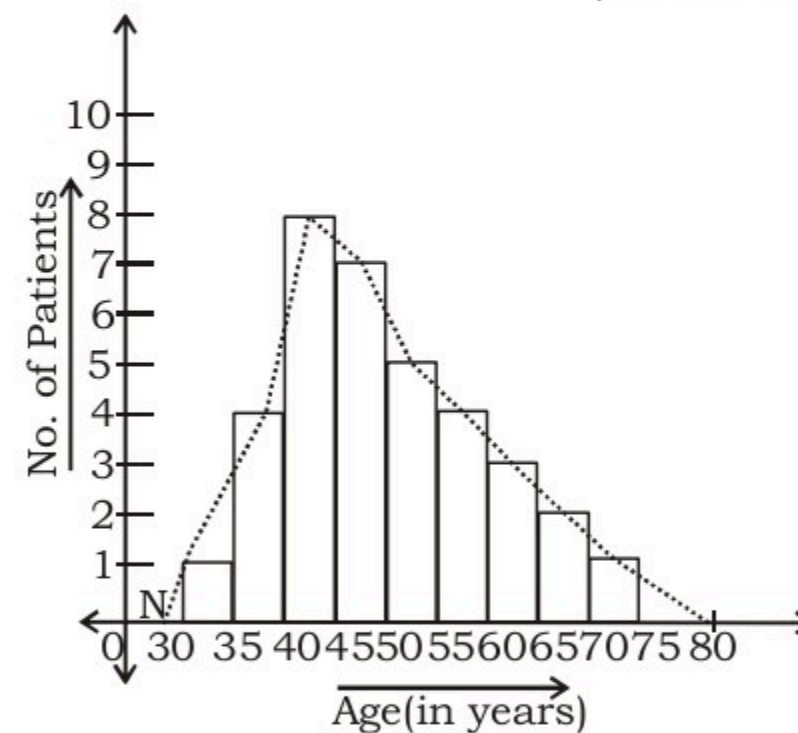
(SSC CHSL Exam 02.11.2014)



72. The subject for which demand is maximum:
(a) Chemistry (b) Mathematics
(c) Computer (d) Biotechnology
73. The subject for which demand is minimum:
(a) Statistics (b) zoology
(c) Botany (d) Microbiology
74. The number of Chemistry seeking applicants increased by
(a) 17.26% (b) 18.89%
(c) 19.25% (d) 21.08%
75. The number of Physics seeking applicants increase by
(a) 17.26% (b) 18.89%
(c) 19.25% (d) 21.08%
76. The number of Mathematics seeking applicants increased by
(a) 17.26% (b) 18.89%
(c) 19.25% (d) 21.08%

Directions(77-81): The diagram shows the age-distribution of the patients admitted to a hospital on a particular day. Study the diagram and answer the questions.

(SSC CHSL Exam 09.11.2014)



77. Number of patients of age between 55 years and 60 years, who got admitted to the hospital on that day is
(a) 6 (b) 4 (c) 24 (d) 8
78. Total number of patients of age more than 55 years, who got admitted to the hospital is
(a) 4 (b) 7 (c) 9 (d) 10
79. Number of patients of age more than 40 years and less than 55 years, who got admitted to the hospital on that day is
(a) 20 (b) 30 (c) 15 (d) 12
80. Percentage of patients of age less than 45 years, who got admitted to the hospital on that day is approximately equal to
(a) 14% (b) 20% (c) 37% (d) 62%
81. About 11% of the patients who got admitted to the hospital on that particular day were of age
(a) either between 35 years and 40 years or between 55 years and 60 years
(b) between 60 years and 65 years
(c) between 35 years and 40 years
(d) between 35 years and 40 years and between 55 years and 60 years.

Directions(82-84): The following table gives zonewise survey report of the people of a country who take coffee. Study the table and answer the questions.

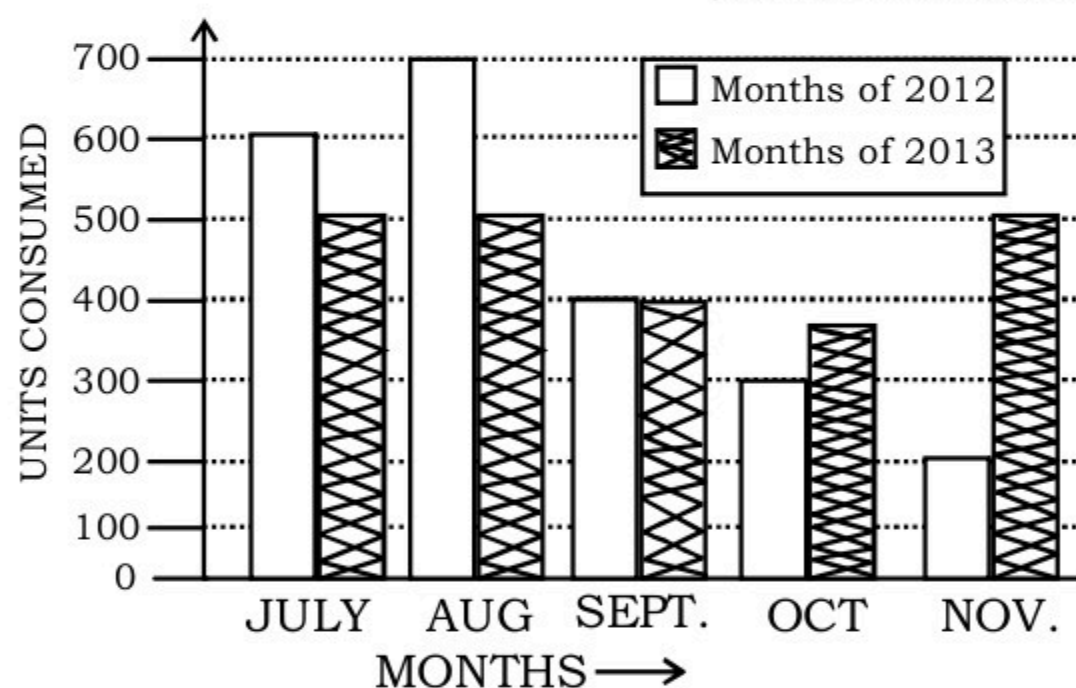
(SSC CGL Tier I Exam 19.10.2014)

Take coffee	Zone			
	North	East	West	South
More than 3 times a day	410	310	700	1450
1 to 3 times a day	1220	830	1250	1120
Twice a week	1640	710	950	420
Only once a week	620	540	530	350
Never	950	430	620	50

82. The percentage of people of south zone who take coffee at least once a day is close to
(a) 33.51 (b) 42.72 (c) 75.81 (d) 80.82
83. The percentage of people from non-west zone who take coffee 'only once a week' is approximately
(a) 11 (b) 12 (c) 13 (d) 14
84. The ratio of the total number of people surveyed who take coffee more than 3 times a day to the total number of people who do not take coffee at all is
(a) 1 : 1.4 (b) 1.4 : 1 (c) 1.5 : 1 (d) 1 : 1.1

Directions: In questions nos. 85 to 88 study the following bar-diagram and answer the questions. Electricity units consumed by a family in two consecutive years during July to November;

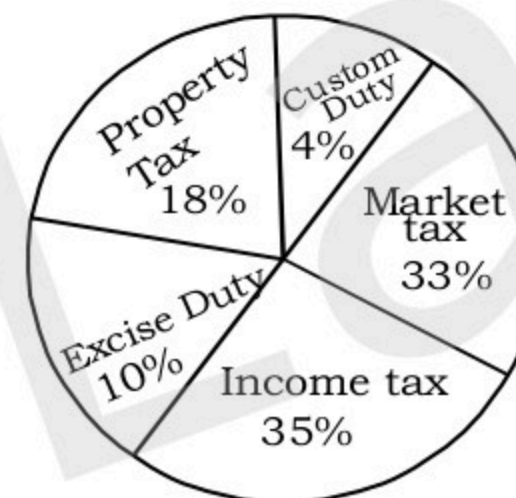
(CGL-16-08-2015 Evening)



85. In how many months in 2012, the consumption of electric units was more than the average units consumption in that years:
(a) 5 (b) 2 (c) 4 (d) 3
86. The total units consumption in the years 2013 during these 5 months, in respect of the same in the previous year has been:
(a) increased by 2.27%
(b) found unaltered
(c) decreased by 2.27%
(d) increased by 2.22%
87. The maximum difference in the units consumption between these two years has been found in the month of :-
(a) October (b) August
(c) November (d) July
88. The average electric consumption by the family during these 5 months in 2013 is
(a) 450 units (b) 470 units
(c) 440 units (d) 400 units

Directions: Questions nos. 89 to 90 the income of a state under different heads is given in the following pie-chart and answer the questions.

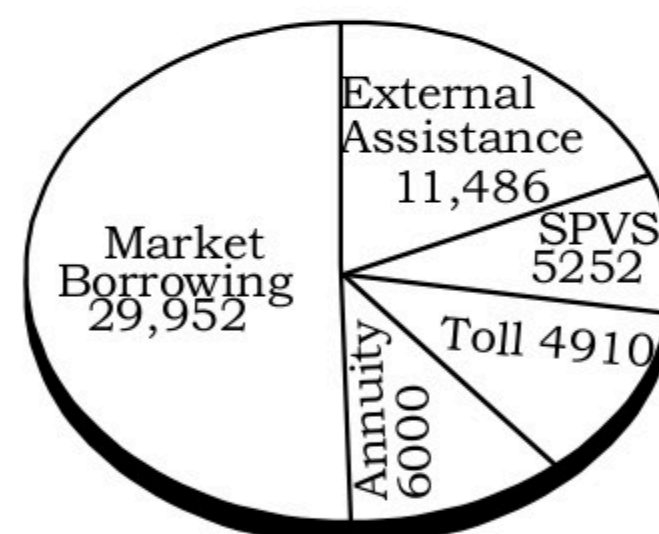
(CGL-16-08-2015 Evening)



89. If the income from the market tax in a year be ₹ 165 crores then the total income from other sources is (in ₹ cores):-
(a) ₹ 335 (b) ₹ 325 (c) ₹ 345 (d) ₹ 365
90. If the total income in a year be ₹ 733 crores then the income (in ₹ cores) from Income tax and 'excise duty' is:
(a) ₹ 329.80 (b) ₹ 331.45
(c) ₹ 329.85 (d) ₹ 331.50

Directions (91-93):- The following pie-chart shows the sources of funds to be collected by the National Highways Authority of India (NHAI) for its Phase II projects. Study the pie-chart and answer the following three questions:

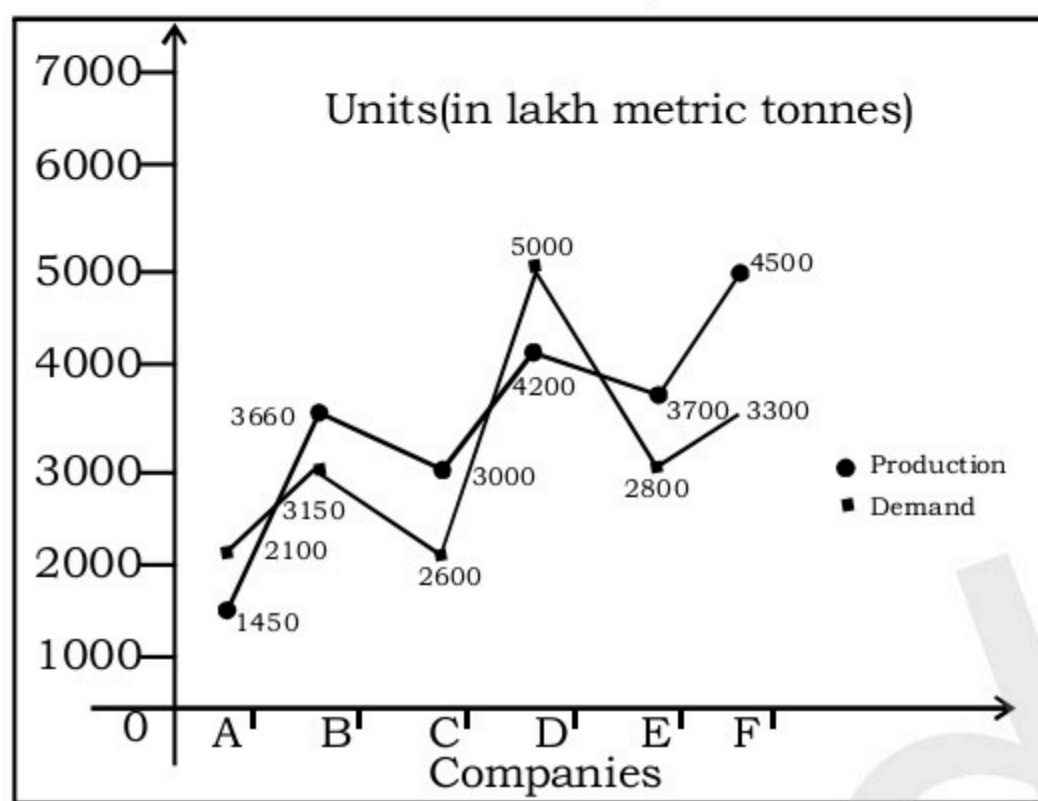
(CGL-09-08-2015 Morning)



91. If the toll is to be collected through and outsourced agency by allowing a maximum 10% commission how much amount should be permitted to be collected by the outsourced agency, so that the project is supported with ₹ 4,910 crores?
 (a) ₹ 6,213 crores (b) ₹ 5,827 crores
 (c) ₹ 5,401 crores (d) ₹ 5,316 crores
92. If NHAI could receive a total of ₹ 9,695 crores as External Assistance, by what percent (approximately) should it increase the Market Borrowing to arrange for the shortage of funds?
 (a) 4.5% (b) 7.5% (c) 6% (d) 8%
93. The central angle corresponding to Market Borrowings is
 (a) 52° (b) 137.8° (c) 187.2° (d) 192.4°

Directions (94–96):- The graph shows the demand and production of different companies. Study the graph and answer the question nos.

(CGL-09-08-2015 Evning)

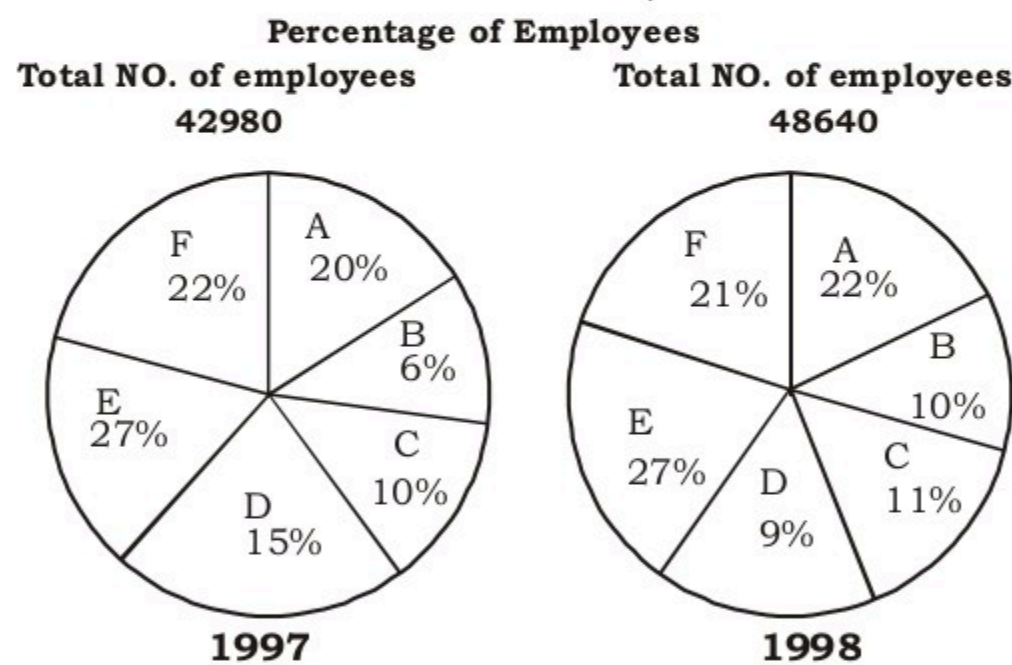


94. What is the ratio of the companies having more demand than production to those having more production than demand?
 (a) 1 : 2 (b) 2 : 3 (c) 2 : 1 (d) 3 : 2
95. The demand of company B is what percentage of the production of company A?
 (a) 50% (b) 70% (c) 80% (d) 60%
96. The production of company A is approximately what percent of the demand of company C?
 (a) 50% (b) 60% (c) 55% (d) 65%

Direction (97–101) :- Percentage of different types of employees in a company in two consecutive years.

Study the graph carefully and answer the following five questions:

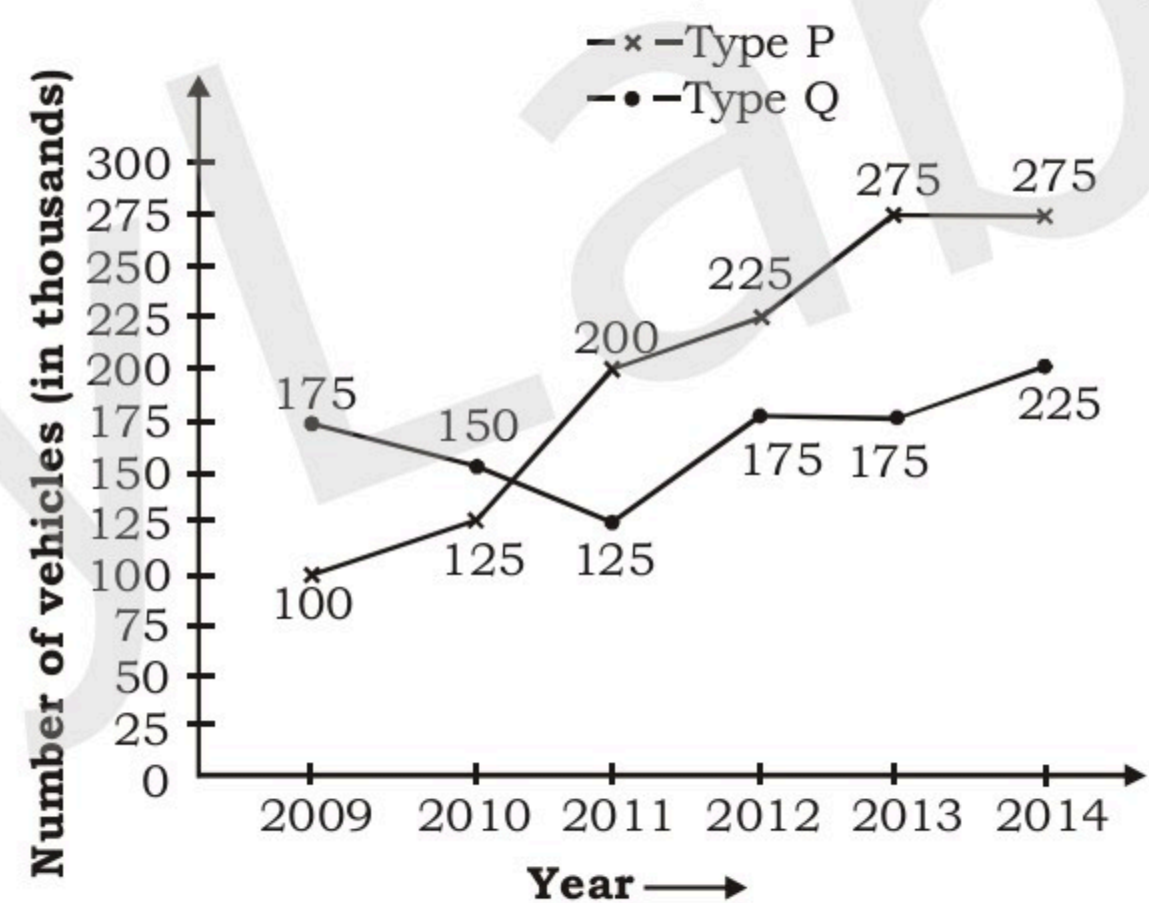
(CPO 21-06-2015 Evening)



97. In 1997 the total number of which of the following types of pairs of employees was approximately equal to the employees in 1998 ?
 (a) D and E (b) C and D (c) A and C (d) B and C
98. From 1997 to 1998 in the case of which of the following types of employees the change was maximum?
 (a) C (b) D (c) B (d) A
99. What was the approximate difference in the number of B type of employees during 1997 and 1998 ?
 (a) 2620 (b) 2085 (c) 2285 (d) 2325
100. If the number of D type employees in 1998 was 5000. What would have been its approximate percentage in the company ?
 (a) 14 (b) 10 (c) 12 (d) 16
101. The number of A type employees in 1998 was approximately what percent of the number of A type employees in 1997 ?
 (a) 125 (b) 95 (c) 115 (d) 140

Direction (102–106):- The following graph shows production (in thousands) of two types (P and Q) of vehicles by a factory over the years 2009 to 2014. Study the graph and answer five question

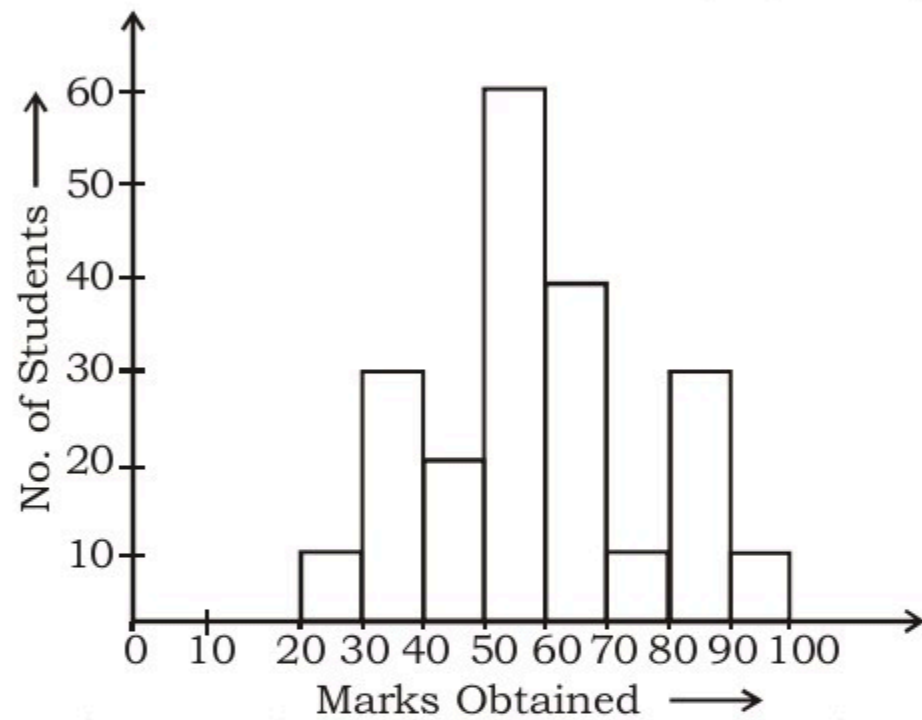
(CGL Mains 25-10-2015)



102. Approximate percentage decrease in production of Types Q vehicles from 2010 to 2011 is
 (a) 14.3 (b) 10.1 (c) 16.3 (d) 12.5
103. The ratio of total production of Type P vehicles to total production of Type Q vehicles over the years is
 (a) 41 : 48 (b) 5 : 8 (c) 8 : 5 (d) 48 : 41
104. The production of Type Q vehicles in 2010 was approximately what percent of Type P vehicles in 2014?
 (a) 60 (b) 45.5 (c) 54.5 (d) 75
105. In how many of the given years, was the production of Type P vehicles of the company more than the average production of this type vehicles in the given years?
 (a) 3 (b) 5 (c) 2 (d) 4
106. The total production of Type P vehicles in the year 2009 and 2011 is what percent of total production of Type Q vehicles in 2010 and 2014 ?
 (a) 81.25 (b) 75 (c) 80 (d) 69.25

Directions(107–110): Study the following histogram and answer the four questions.

(LDC 1-11-2015 Morning)

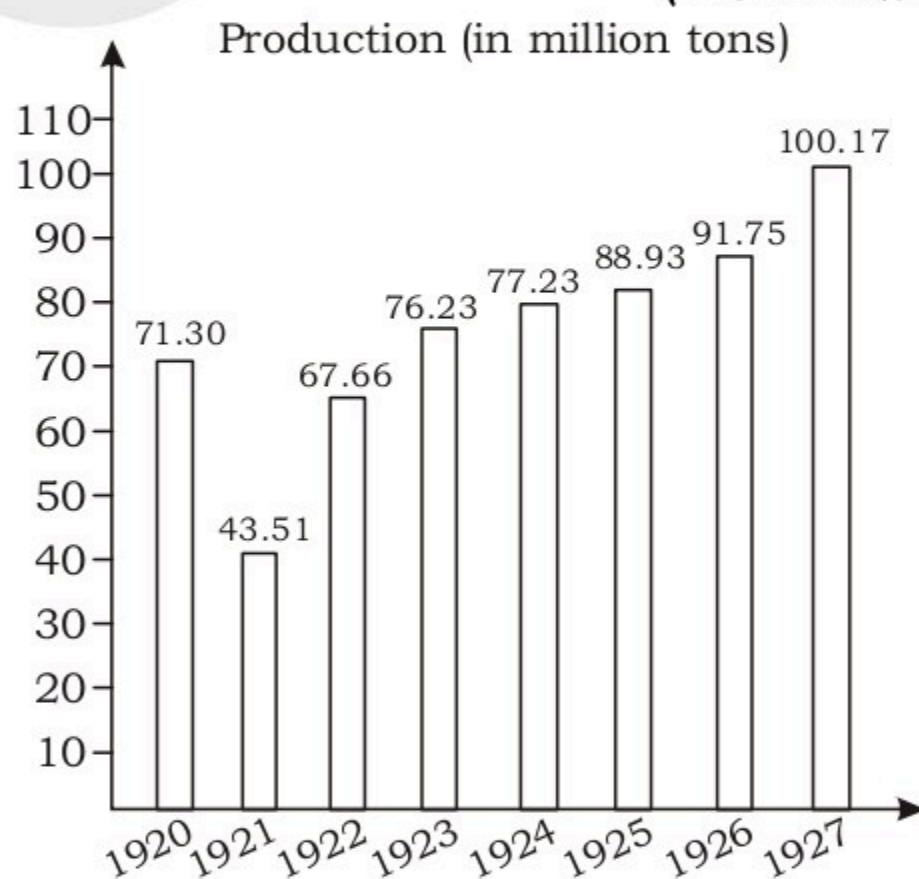


107. The no. of students securing marks in the range 90 – 100 is
(a) 10 (b) 20 (c) 30 (d) 40
108. The range of marks obtained by maximum no. of students is
(a) 30 – 40 (b) 60 – 70 (c) 50 – 60 (d) 80 – 90
109. The percentage of students securing marks less than 50 is
(a) $28\frac{4}{7}\%$ (b) $27\frac{5}{7}\%$ (c) $23\frac{13}{21}\%$ (d) $47\frac{13}{21}\%$
110. The total no. of students on whom this survey was made is
(a) 190 (b) 200 (c) 220 (d) 210

Directions(111–114): The following table shows the world production of steel in 1920-1927. Study the table and answer the question.

Year	Production (in million Tons)
1920	71.30
1921	43.51
1922	67.66
1923	76.23
1924	77.23
1925	88.93
1926	91.75
1927	100.17

(LDC 1-11-2015 Evening)



111. The difference of the production of steel in the year 1923 and 1924 is $x\%$ of year 1927. Then the value of x approximately.

- (a) .1 (b) .01 (c) .001 (d) 1

112. The number of years during which the company has its production less than the average production during 1920 -1927 is approximately.:

- (a) 3 (b) 4 (c) 6 (d) 2

113. The ratio of production of steel in the year 1924 and 1925 to that of 1923 and 1927 is:

- (a) 2005 : 2077 (b) 2077 : 2205
(c) 2205 : 2007 (d) 2205 : 2077

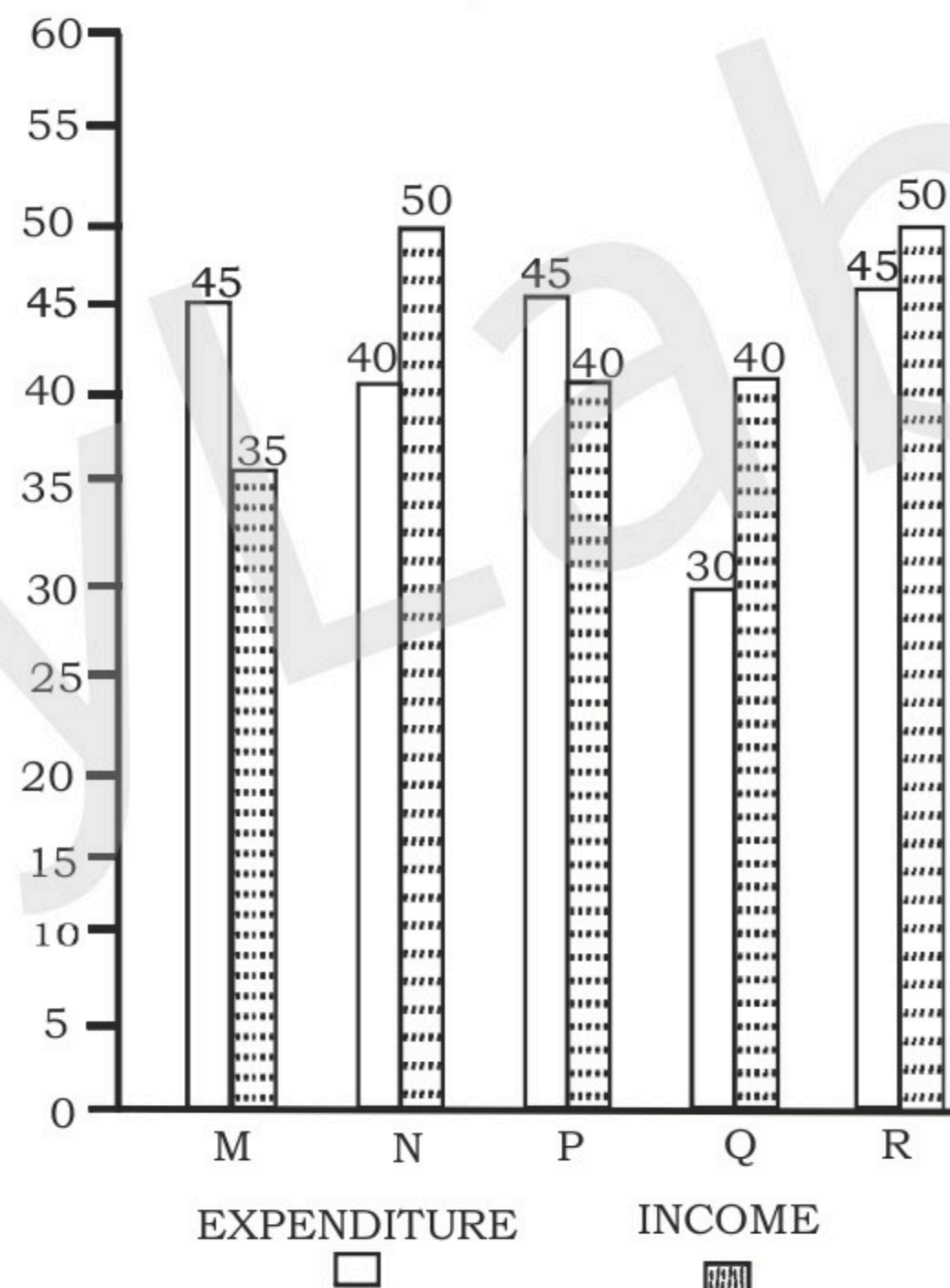
114. The average production of steel is:

- (a) 74.07 (b) 75.13 (c) 77.10 (d) 76.09

Direction(115–119): Study the bar chart & answer the Questions.

Income and Expenditure (in crore Rs.)
in 2001 of five companies

(LDC 15-11-2015 Morning)



115. For company R, if the expenditure had increased by 20% in the year 2001 from the year 2000 and the company had earned profit of 10% in 2000, the company's income in year 2000 (in crore)

- (a) 35.75 (b) 37.25 (c) 41.67 (d) 38.5

116. In 2001, the approximate percentage of profit/loss of all the five companies taken together is equal to:

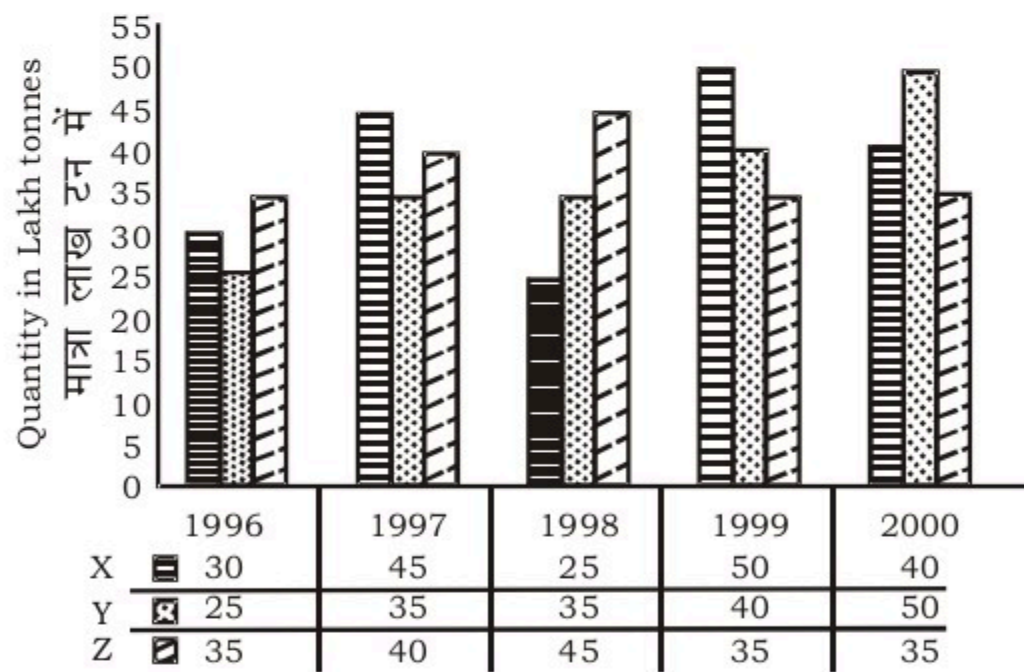
- (a) 4% loss (b) 6.48% profit
(c) 6.88% loss (d) 4.64% profit

117. In the income of company Q in 2001 was 10% more than 2000 and the company had earned a profit of 20% in 2000, then its expenditure in 2000 (in crores) was:

- (a) 32.32 (b) 28.28 (c) 34.34 (d) 29.09

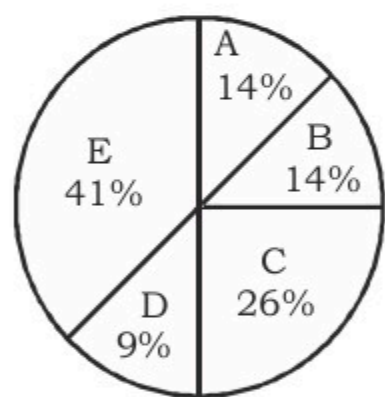
118. The companies M and N together had a percentage of profit/loss of:
 (a) 12% loss (b) 10% loss
 (c) No loss and No profit (d) 10% profit
119. The company earning the percentage of profit in the year 2001 is:
 (a) N (b) Q (c) P (d) M

Directions(120–124):- The bar graph provided below gives the data of the production of paper (in lakh tonnes) by three different companies X, Y, Z over the years. Study the bar chart and answer the following questions.



120. The ratio of the average production of company X in the period 1998–2000 to the average production of company Y in the same period is:
 (a) 24:27 (b) 23:25 (c) 25:26 (d) 27:29
121. The percentage increase in the production of Company Y from 1996 to 1999 is:
 (a) 55% (b) 50% (c) 60% (d) 40%
122. The difference between the production of company Z in 1998 and company Y in 1996 is:
 (a) 20,00,000 tonnes (b) 10,00,000 tonnes
 (c) 15,00,000 tonnes (d) 25,00,000 tonnes
123. The average production for five years in maximum for company?
 (a) Y (b) Z
 (c) X and Z/X और Z (d) X
124. The percentage of production of company Z to the production of company Y is maximum in:
 (a) 1996 (b) 1999
 (c) 2000 (d) 1998

Directions(125–128) : Revenue earned by the Central Government is given in Pie-chart. Study the pie-chart and answer 4 questions.



A= Custom duty
 B= Other
 C= Income Tax
 D= Corporation Tax
 E= Excise duty

125. The ratio of revenue earned from excise duty and custom duty to that of other is
 (a) 11 : 3 (b) 11 : 2 (c) 11 : 4 (d) 11 : 5

126. If the income of Central Government from Excise Duty is 28,618 crores, then the total revenue earned by the government is
 (a) 58,900 crores (b) 47,200 crores
 (c) 69,800 crores (d) 45,600 crores
127. If the percentage of revenue earned by the Central Government from Corporation Tax is x times to that of the percentage of money earned from percentage of money earned from Excise Duty, then the value of x is

(a) $\frac{41}{9}$ (b) $\frac{9}{41}$ (c) $\frac{14}{41}$ (d) $\frac{41}{14}$

128. The ratio of revenue of the Central Government earned from the Custom Duty and Income Tax is
 (a) 14 : 41 (b) 9 : 26 (c) 10 : 9 (d) 7 : 13

Directions(129–133): Study the following table which shows the amount of money invested (Rupees in crore) in the core infrastructure areas of two districts. A and B of a State, and answer the below five question.

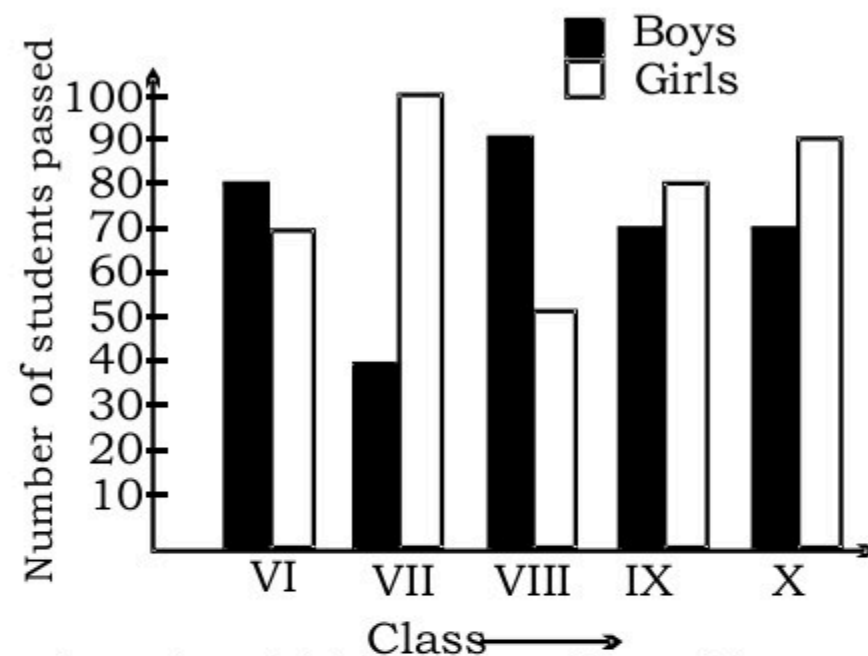
(SSC CPO 20-03-2016 Morning)

	District A		District B	
Core Area	1995	1996	1995	1996
Electricity	815.2	1054.2	2065.8	2365.1
Chemical	389.5	476.7	745.3	986.4
Thermal	632.4	565.9	1232.7	1026.3
Solar	468.1	589.6	1363.5	1792.1
Nuclear	617.9	803.1	1674.3	2182.1
Total	2923.1	3489.5	7081.6	8352.0

129. By approximately what percent was the total investment in the two districts A and B more in 1996 as compared to 1995 ?
 (a) 18% (b) 24% (c) 21% (d) 14%
130. The total investment in electricity and thermal energy in 1995, in these two districts A and B formed approximately what percent of the total investment made in that year?
 (a) 47% (b) 41% (c) 52% (d) 55%
131. In district B, the investment in which area in 1996 did show the highest percentage increase over the investment in that area in 1995?
 (a) Chemical (b) Solar
 (c) Electricity (d) Nuclear
132. Approximately how many times was the total investment in 1995 and 1996 in district B was that of total investment of district A in the same years?
 (a) 2.8 (b) 2.4 (c) 1.7 (d) 1.9
133. If the total investment in district B shows the same rate of increase in 1997, as it had shown from 1995 to 1996, What approximately would be the total investment in B in 1997 ?
 (a) Rs. 10020 crore (b) Rs. 8540 crore
 (c) Rs. 9850 crore (d) Rs. 9170 crore

Directions(134–137): The bar graph shows the results of an annual examination in a secondary school in a certain year. Answer the following four questions based on this chart

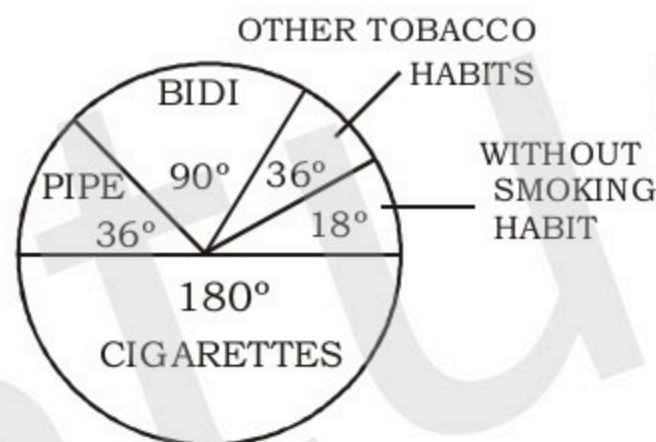
(SSC CPO 20-03-2016 Morning)



134. The class in which the number of boys passed is nearest to the average number of girls passed per class, is
 (a) VIII (b) IX (c) X (d) VI
135. The average number of boys passed per class is
 (a) 78 (b) 72 (c) 75 (d) 70
136. The class having the highest number of passed students, is
 (a) VII (b) IX (c) VIII (d) X
137. The ratio of the total number of boys passed to the total number of girls passed in the three classes VII, VIII and IX is
 (a) 19 : 25 (b) 21 : 26
 (c) 20 : 23 (d) 18 : 21

Directions (138-142):- The Pie-chart shows the result of a survey among 119060 people concerning the use of tobacco. Study the Pie-chart and answer the question.

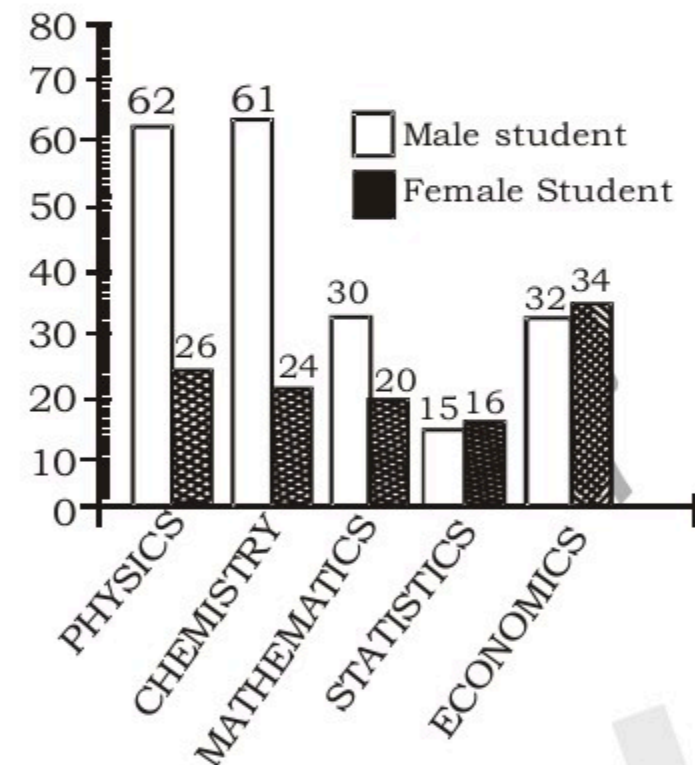
(SSC CPO 20-03-2016 Evening)



138. Number of people smoking Cigarettes is:
 (a) 53905 (b) 59305 (c) 59530 (d) 11906
139. Percentage of People under survey, who do not have any smoking habit is:
 (a) 7.5% (b) 10% (c) 5% (d) 5.2%
140. Number of people preferring Bidi is:
 (a) 29790 (b) 35718 (c) 29765 (d) 37185
141. Number of Cigarette smoking people is greater than the number of pipe smoking people by:
 (a) 59530 (b) 47624 (c) 11906 (d) 29765
142. Let P be the percentage of people using Cigarettes, Pipe and Bidi as their smoking means and Q be the percentage of people using other means as their smoking habits. Then P is more than Q by:
 (a) 85% (b) 75% (c) 10% (d) 25%

Directions (143 to 146):- The data given in Bar diagram relate to the department wise admission of 320 students to BSc. (Honors) first year classes of a certain college in the given five subjects. Study the graph and answer the question.

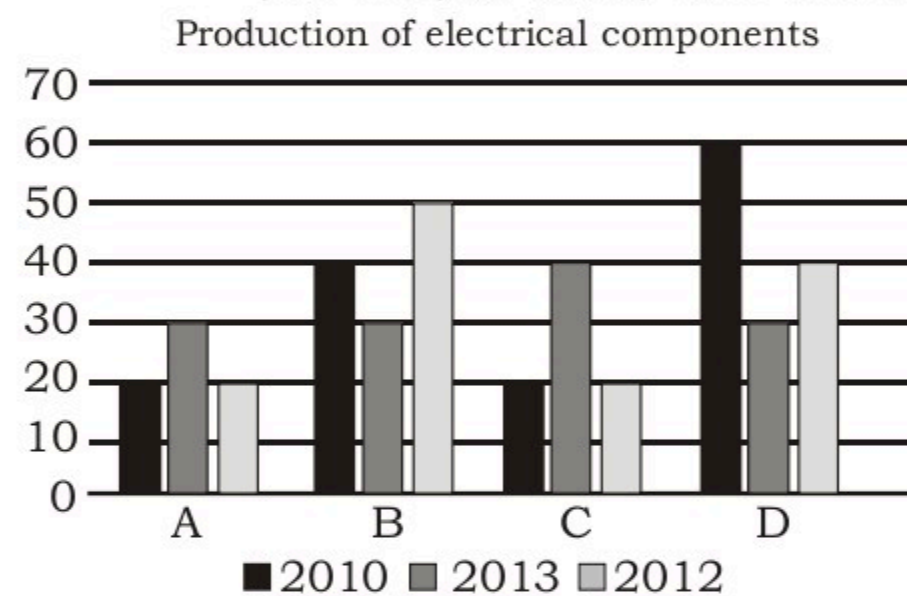
(SSC CPO 20-03-2016 Evening)



143. The total number of male students who got admitted in Mathematics and Economics as compared to the total number of female students getting admission in Mathematics and Economics is:
 (a) more by 4.2% (b) more by 12.8%
 (c) more by 14.8% (d) less by 17%
144. The subject which the female students are finding difficult as compared to other subject is:
 (a) Statistics (b) Economics
 (c) Chemistry (d) Mathematics
145. The difference of the choice of the subject between male and female students is maximum for the subject.
 (a) Chemistry (b) Economics
 (c) Statistics (d) Physics
146. The subject in which the difference in the number of male and female students is minimum in:
 (a) Chemistry (b) Physics
 (c) Statistics (d) Economics

Directio (147 – 150): Study the following graph carefully and answer the given questions

(SSC CPO(RE. EXAM) 04-06-2016 MORNING)



147. Which company has the highest average production over the three years?
 (a) Company A (b) Company C
 (c) Company D (d) Company B

148. The total production of Companies A and D in year 2010 is what percent of total production of four companies in the year 2012?

- (a) 57% (b) 55% (c) 52% (d) 61%

149. Which the drop in production of company D from year 2010 to 2012 in percentage?

- (a) 18% (b) 33.3% (c) 50% (d) 25%

150. What is the ratio between average production by company B in three years to the average production by company C in three years?

- (a) 1 : 2 (b) 4 : 3 (c) 3 : 2 (d) 2 : 3

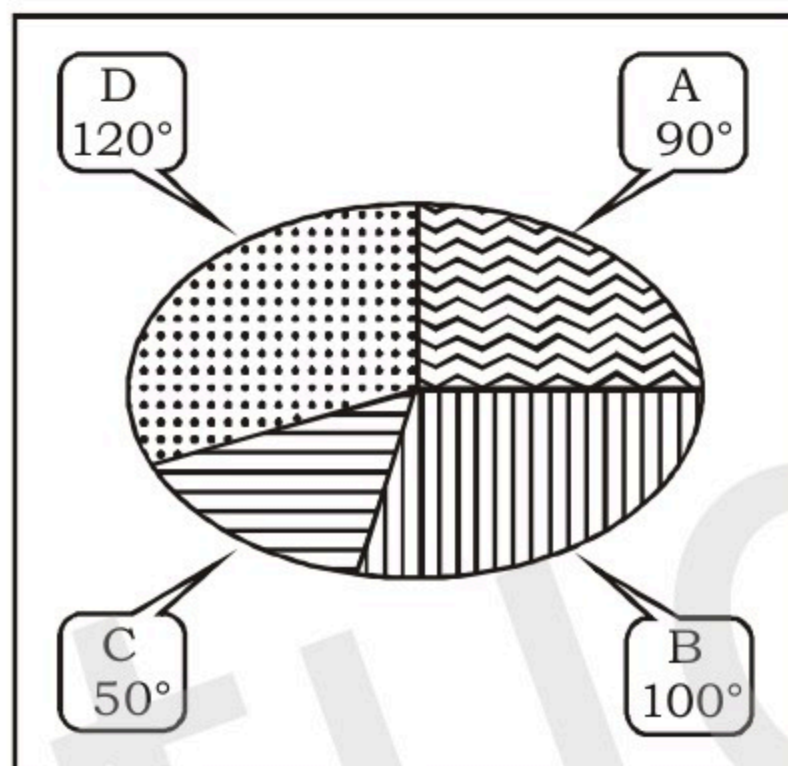
Direction (151–153): The pie chart represent the distribution of cost of production of a firm in different purpose. Total cost of production of firm is Rs. 720 lakh.

A = Cost of raw materials

B = Cost of packing materials

C = Cost of labour

D = Maintenance cost



(SSC CPO(RE. EXAM) 05-06-2016 MORNING)

151. Find the difference between Maintenance cost and raw materials cost.

- (a) Rs. 50 Lakh (b) Rs. 60 Lakh
(c) Rs. 70 Lakh (d) Rs. 45 Lakh

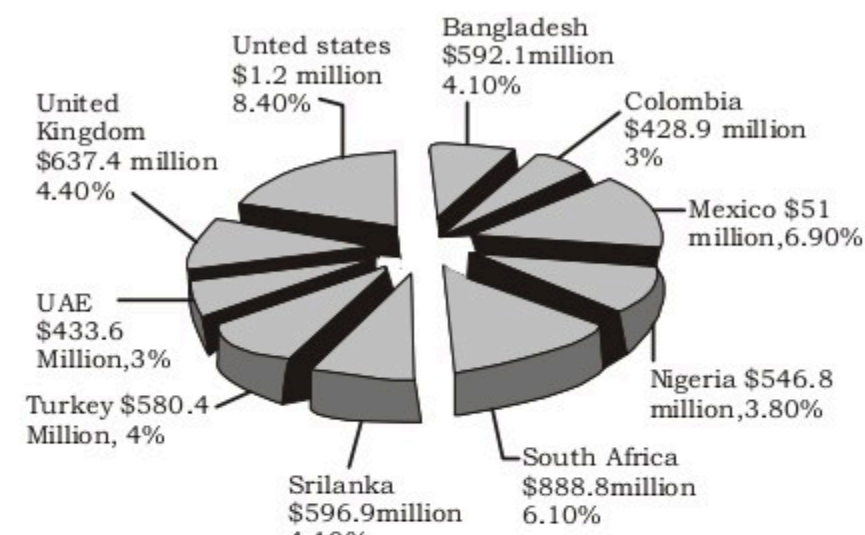
152. Cost of packing materials and labour together amount to:

- (a) 250 lakh (b) 430 lakh
(c) 300 lakh (d) 220 lakh

153. If cost of production is increased by 10%, then the new packing cost will be

- (a) Rs. 200 lakh (b) Rs. 220 lakh
(c) Rs. 180 lakh (d) Rs. 150 lakh

Direction (154–156): The following pie chart shows the export of automobiles of India to the 10 countries given below in 2014. The 10 countries imported 47.8% of the total export of India. Observe the chart given below and answer the following question.



(SSC CPO(RE. EXAM) 05-06-2016 EVENING)

154. Which country is the fifth largest importer of Automobiles from India?

- (a) United Kindom (b) Bangladesh
(c) South Africa (d) Sri Lanka

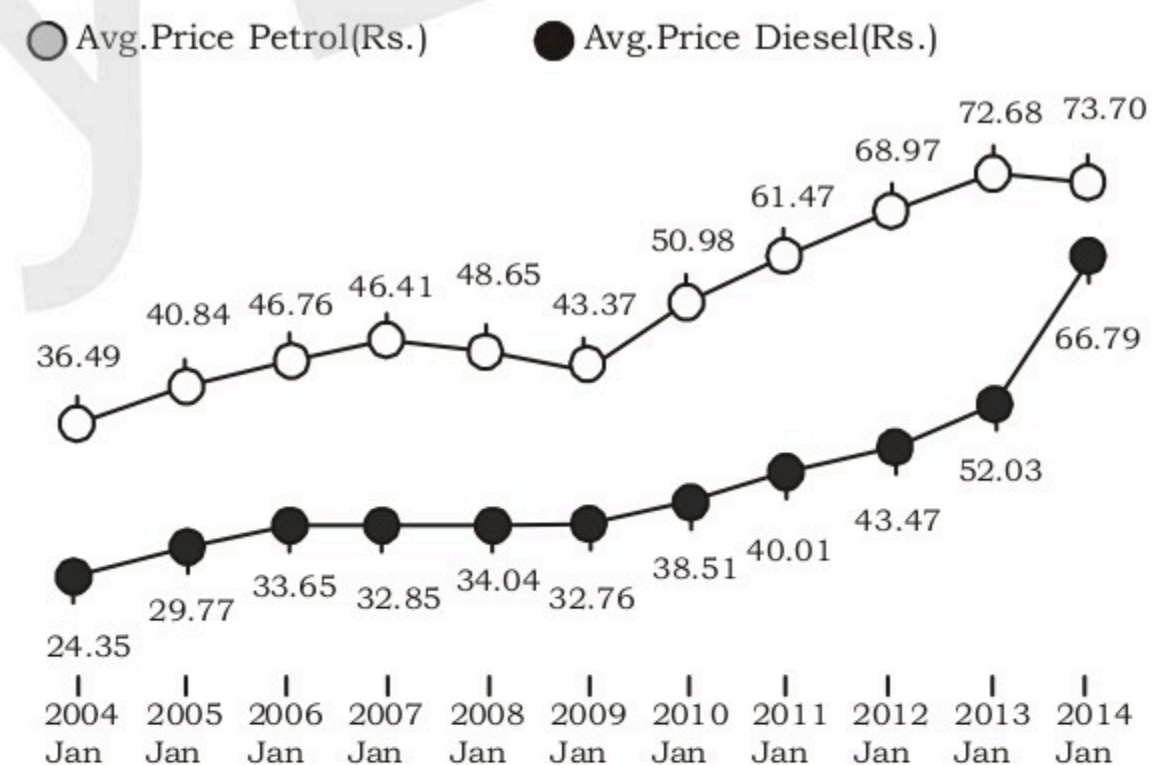
155. What is the average of exports of the countries UAE, Bangladesh, and Sri Lanka?

- (a) 580.5 million (b) 618.6 million
(c) 473.7 million (d) 540.8 million

156. The number of automobiles exported to United States is roughly equal to the combined export to which two countries?

- (a) Sri lanka-Turkey
(b) Sri lanka-Bangladesh
(c) Mexico-UAE
(d) United kingdom-Turkey

Direction (157–159): Observe the graph below and answer the following question



(SSC CPO(RE. EXAM) 06-06-2016 MORNING)

157. What is the approximate percentage difference in average price of Petrol in 2004 and 2014?

- (a) 98% (b) 100% (c) 102% (d) 105%

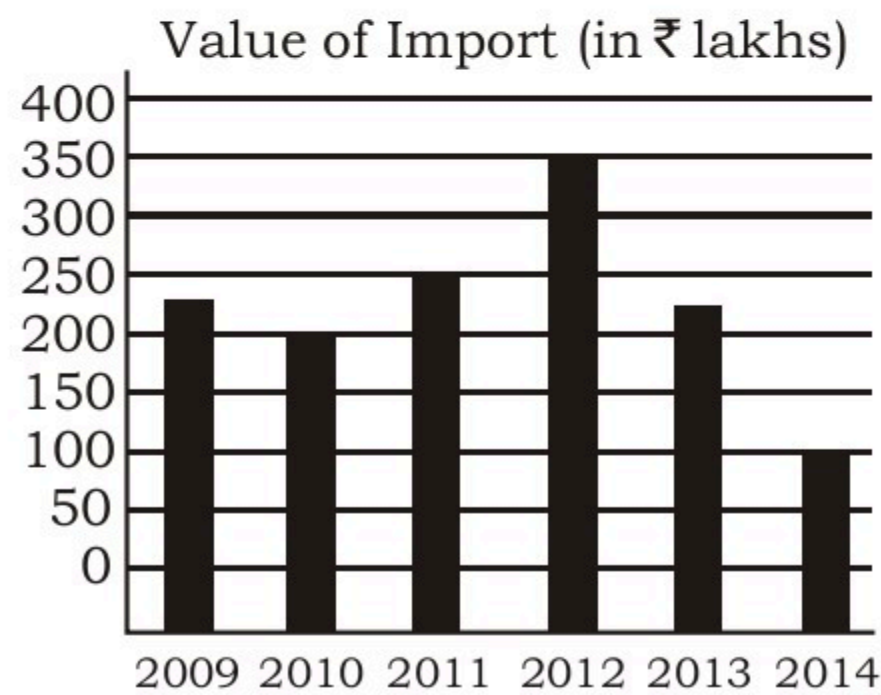
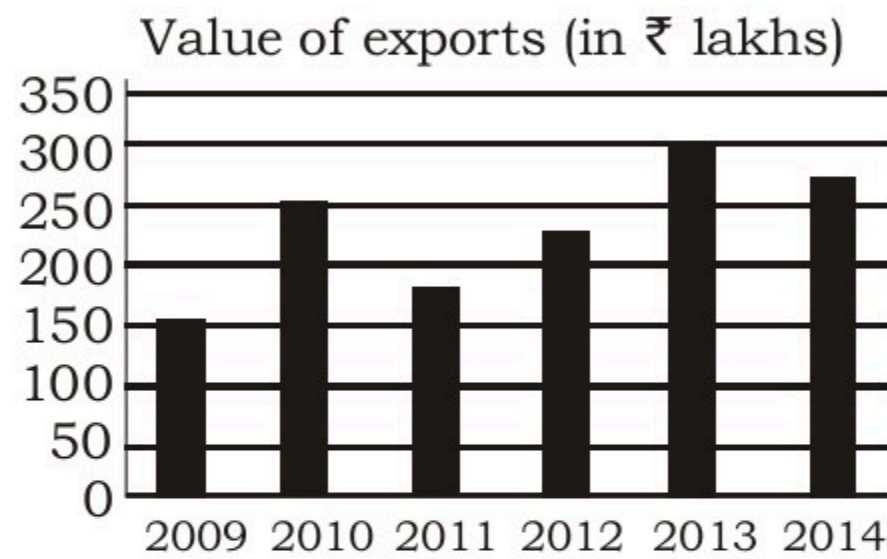
158. In which year the difference between average prices of petrol and Diesel is minium?

- (a) 2005 (b) 2009 (c) 2014 (d) 2004

159. What is the average of diesel prices over the years 2006-2012?

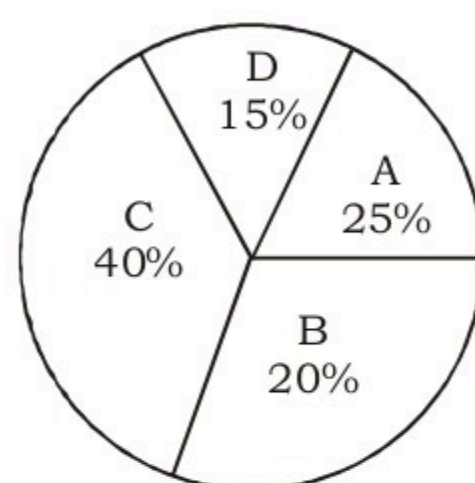
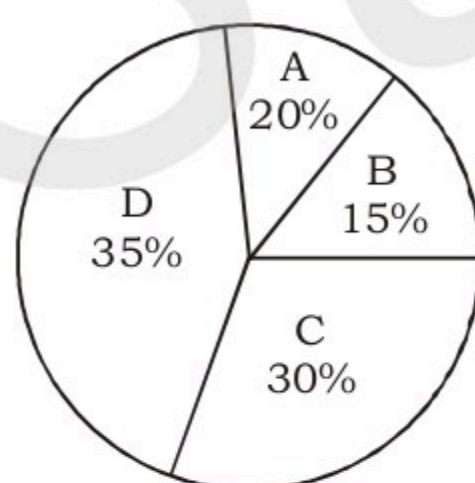
- (a) 36.47 (b) 37.34 (c) 35.67 (d) 38.77

Direction (160–162): Statement is a data regarding export and import of a company over the years. Answer the question given below.



(SSC CPO(RE. EXAM) 06-06-2016 EVENING)

160. What was the percentage increase in imports from year 2011 to 2012?
 (a) 25% (b) 40% (c) 20% (d) 50%
161. In which year the difference between the imports and exports was minimum?
 (a) 2009 (b) 2010 (c) 2011 (d) 2012
162. In the following pie charts percentage of student studied A, B, C and D in year 2014 and 2015 are shown.

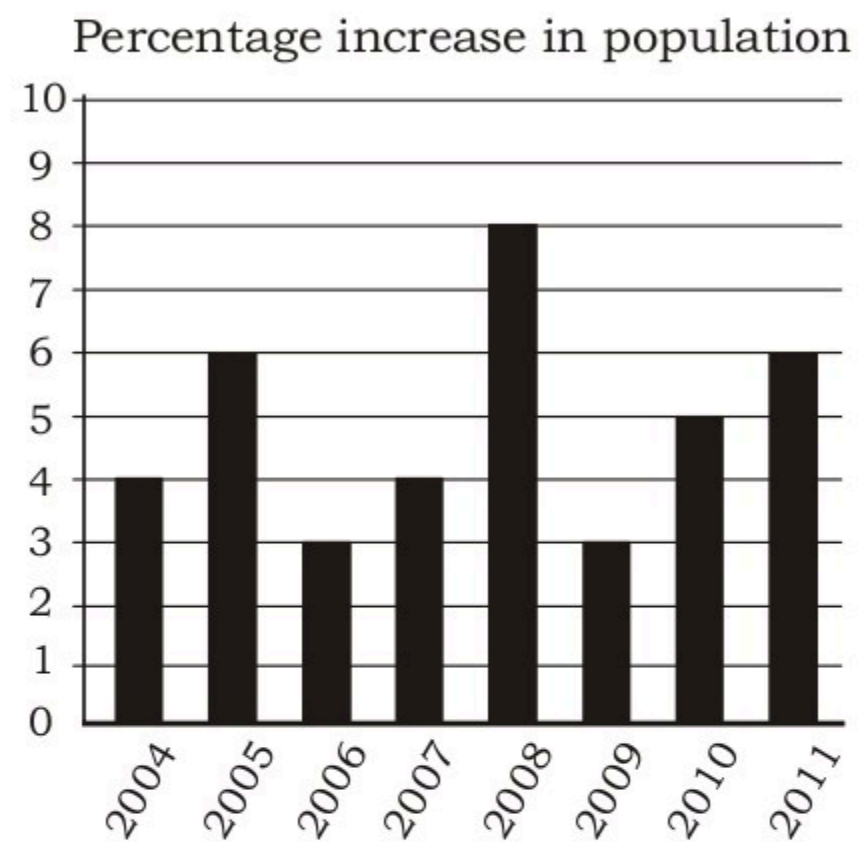


Total students in year 2014 and year 2015 are 3600 and 4000 respectively.

Number of student who studied subject B and C in year 2014 is how much percent less than that of year 2015.

- (a) 37.5 (b) 27.5 (c) 47.5 (d) 32.5

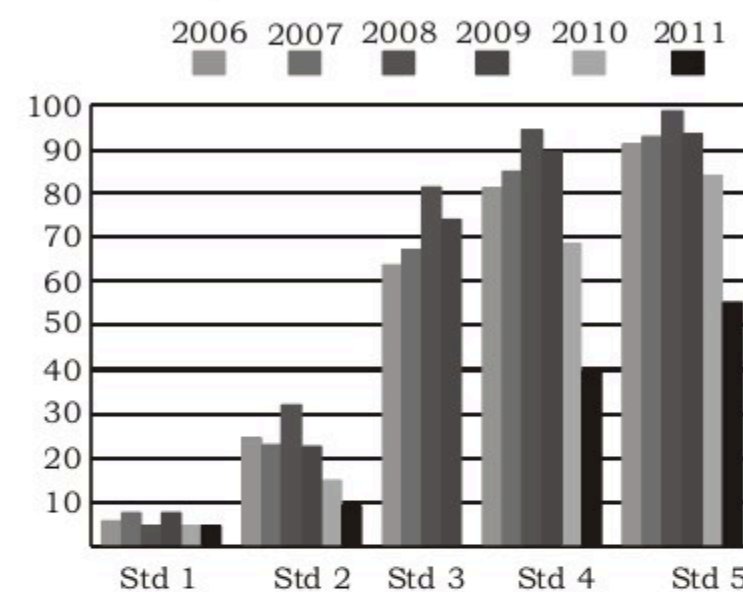
Direction (163–166): Following table gives details about the percentage change of the population in a particular town for given years. Go through the chart given and answer the question that follows:



(SSC CPO(RE. EXAM) 07-06-2016 MORNING)

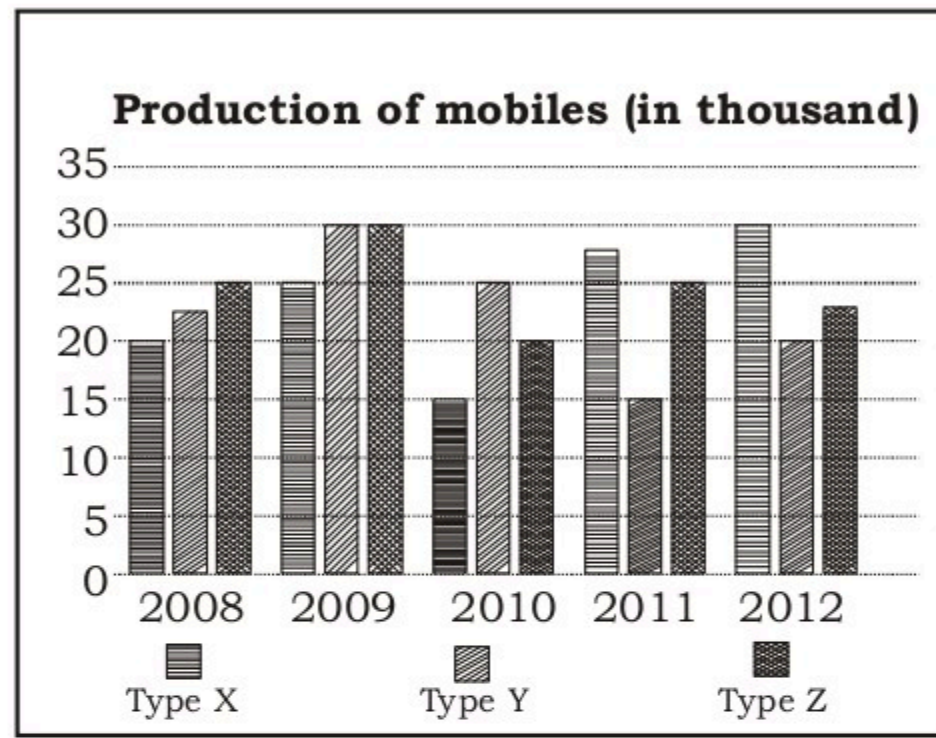
163. Which year out of these 8 years has the highest population?
 (a) 2008 (b) 2005 (c) 2010 (d) 2011
164. What was the population of the town in year 2009?
 (a) 3 (b) 5
 (c) 4 (d) can't be determined
165. What was the percentage increase in population of the town from 2005 to 2008?
 (a) 19% (b) 33.33%
 (c) 22.6% (d) can't determined
166. How many years witnessed a decrease in population across all the given years?
 (a) 1 (b) 2 (c) 3 (d) 0

Directions: (167): Study the following bar graph showing the percentage of children who can read at first grade level, grouped by their grade level in an Indian state. For example, in 2008, 82% of the children from Standard 3 could read a text from standard 1. Now answer the following four questions based on this graph.



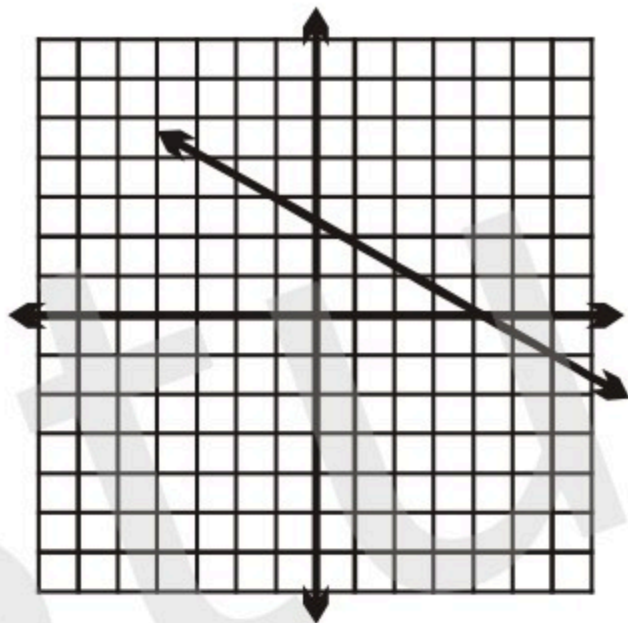
167. In the year 2010, what is the approximate value of average of all Std 1, 2, 3, 4, 5 children who could read the Std 1 text?
 (a) 49.2% (b) 38.6%
 (c) 34.6% (d) Data insufficient

Direction (168–171): Study the following graph carefully and answer the question the question given below. The graph gives the three types of mobile phones manufactured by a company over the years.



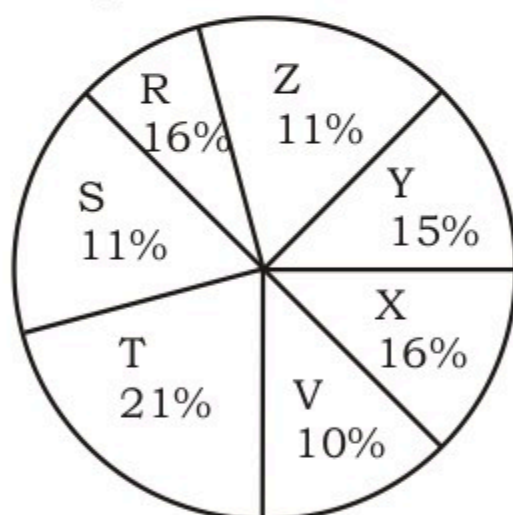
(SSC CPO(RE. EXAM) 07-06-2016 EVENING)

168. In which of the following years, the percentage production of Y type mobile is maximum from Z type mobile phones?
 (a) 2008 (b) 2010 (c) 2011 (d) 2012
169. The total number of all the three types of mobiles manufactured was least in which of the following years?
 (a) 2011 (b) 2008 (c) 2010 (d) 2012
170. What is the percentage drop in the number of Z type mobiles manufactured from 2009 to 2010?
 (a) 25% (b) 50% (c) 33.3% (d) 30%
171. The slope of the given line is:



- (a) Positive
 (b) Negative
 (c) Undefined
 (d) Zero

Directions (172-175): The following pie chart shows proportion of population of seven villages in 2009. Study the pie chart and answer question that follows:

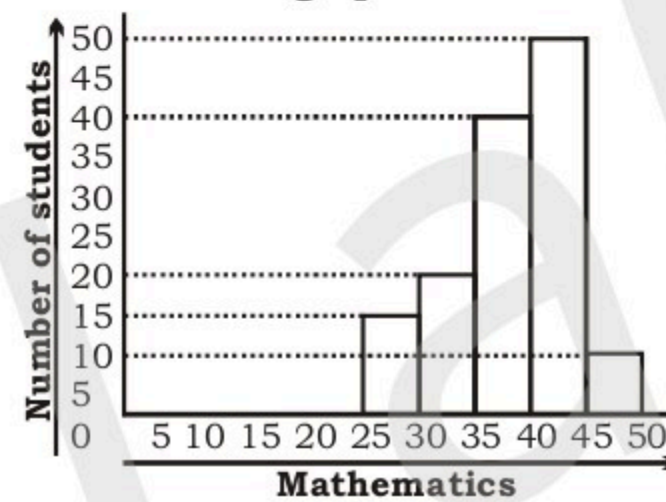


Village	% of population below povertyline
X	38
Y	52
Z	42
R	51
S	49
T	46
V	58

(SSC CGL Pre Exam 2016)

172. If the below poverty line population of the village 'X' is 12160, then the population of village 'S' is
 (a) 18500 (b) 20500 (c) 22000 (d) 20000
173. The ratio of the below poverty line population of village 'T' to that of the below poverty line population of village 'Z' is
 (a) 11 : 23 (b) 13 : 11 (c) 23 : 11 (d) 11 : 13
174. If the population of the village 'R' is 32000, then the below poverty line population of village 'Y' is
 (a) 14100 (b) 15600 (c) 16500 (d) 17000
175. In 2010, the population of 'Y' and 'V' increases by 10% each and the percentage of population below poverty line remains unchanged for all the villages. If in 2009, the population of village Y was 30,000 then the below poverty line population of village 'V' in 2010 is-
 (a) 11250 (b) 12760 (c) 13140 (d) 13780

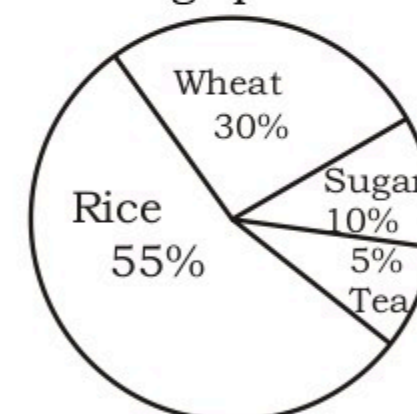
Directions(176-179): Study the following histogram of marks in mathematics (out of 50) of students in a class and answer the following questions.



(SSC CGL Pre Exam 2016)

176. If the pass marks in maths is 31, the number of students who failed in maths is
 (a) 10 (b) 15 (c) 20 (d) 25
177. Total number of students in the class is
 (a) 120 (b) 125 (c) 130 (d) 135
178. The percentage of passed students is (31 is the pass marks)
 (a) $85\frac{8}{9}\%$ (b) $86\frac{8}{9}\%$ (c) $87\frac{8}{9}\%$ (d) $88\frac{8}{9}\%$
179. If the students have got the marks out of 50 and if A+ grade has been declared for above 90%, then the number of students who have got A+ grade is
 (a) 10 (b) 20 (c) 30 (d) 40

Direction (180-183): In the given Pie-chart, the comparative study of the production of rice, wheat, sugar and tea of a country is given. Study the pie-chart and answer the following questions.



(SSC CGL Pre Exam 2016)

180. From this diagram, the ratio of sum of wheat and sugar production to difference in production of rice and tea is

- (a) 4 : 5 (b) 5 : 4 (c) 6 : 1 (d) 1 : 6

181. The production of rice and tea is more/greater than production of wheat by-

- (a) 50% (b) 100% (c) 75% (d) 66.6%

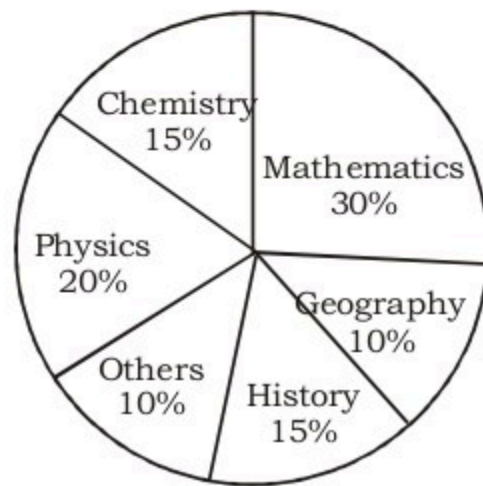
182. The central angle of wheat % is

- (a) 48° (b) 98° (c) 110° (d) 108°

183. Total production of Rice, Wheat, Sugar and Tea is five 500000 kg. Find the production of Rice.

- (a) 175000 kg
(b) 395000 kg
(c) 275000 kg
(d) 27500 kg

Direction (184-187): The following pie-chart shows the study- time of different subject of a student in a day. Study the pie chart and answer the following questions



(SSC CGL Pre Exam 2016)

184. The time spent to study history and chemistry is 4 hours 30 minutes, Then the student studies physics for

- (a) 1 hour 30 min (b) 2.9 hour (approx.)
(c) 2 hours (d) 3 hours

185. If then student studies chemistry for 3 hours, then he/she studies geography for

- (a) 1 hour (b) 2 hours
(c) 1 hour 30 minutes (d) 2 hrs 30 min

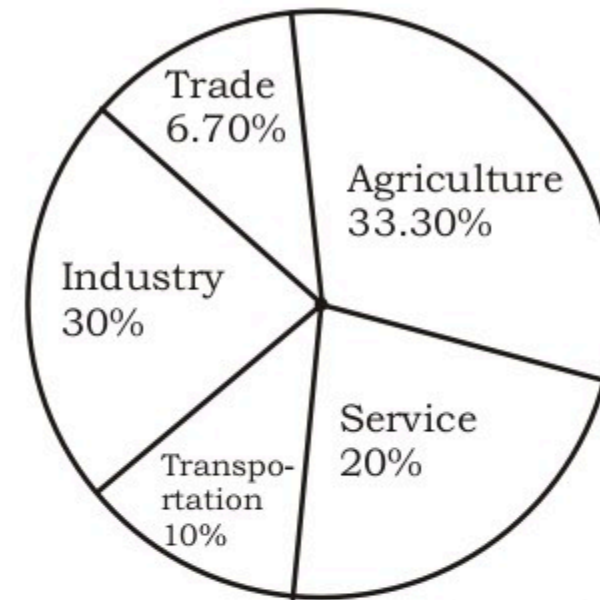
186. If the student studies 10 hours in a day, then he/she studies mathematics for

- (a) 3 hour (b) 10/3 hour
(c) 1/3 hour (d) 3/10 hour

187. Instead of 10%, if the student spends 15% to study other subjects and the time is taken from the time scheduled to study mathematics and if he/she used to study 20 hours per day, then the difference of time for studying mathematics per day is

- (a) 30 minutes (b) 45 minutes
(c) 1 hour (d) 1 hr 30 minutes

Direction (188-191): Study the pie-chart carefully and answer the questions. The pie chart represents the percentage of people involved in various occupations. Total number of people = 20000



(SSC CGL Pre Exam 2016)

188. How many more people are involved in service than in trade?

- (a) 3660 (b) 2660 (c) 1660 (d) 660

189. The ratio of the people involved in service to that of industry is

- (a) 1 : 2 (b) 2 : 3 (c) 3 : 4 (d) 3 : 2

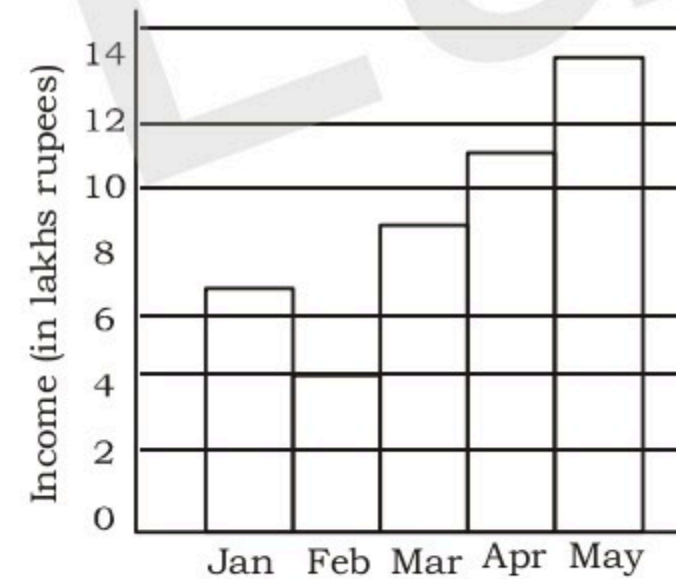
190. The sectorial angle made by the people involved in service in the given pie-chart is

- (a) 36° (b) 90° (c) 72° (d) 108°

191. The difference between the maximum number of people involved and minimum number of people involved in various professions is

- (a) 264 (b) 364 (c) 632 (d) 5320

Direction (192-195): The bar graph given indicates the income of a firm. Study the graph and answer the question given.



(SSC CGL Pre Exam 2016)

192. Which period shows a steady increase of income?

- (a) March to May
(b) February to April
(c) February to May
(d) Insufficient data to predict

193. During which month, the ratio of the income to that of the previous month is the largest?

- (a) February (b) March
(c) April (d) May

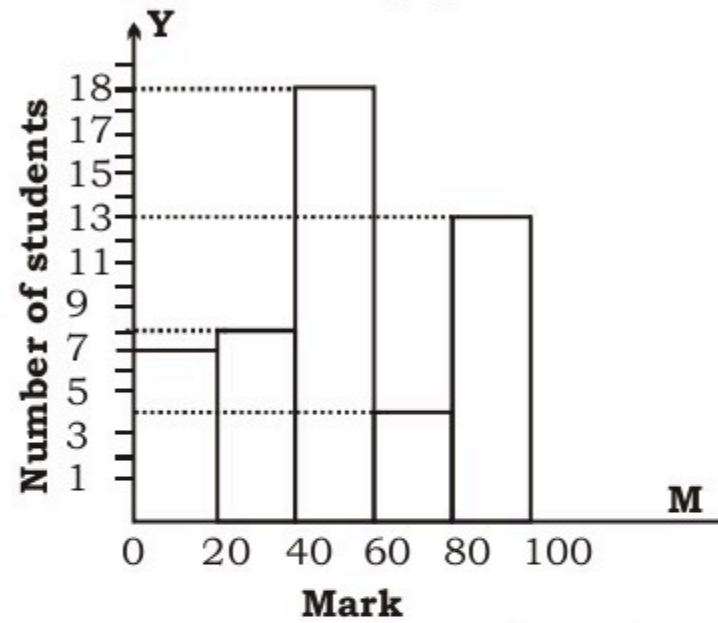
194. The income in May is how many times to that of February?

- (a) 3.25 (b) 4 (c) 3.5 (d) 5

195. The average monthly income of the firm (in lakh ₹) is

- (a) 7.6 (b) 6
(c) 8.8 (d) None of these

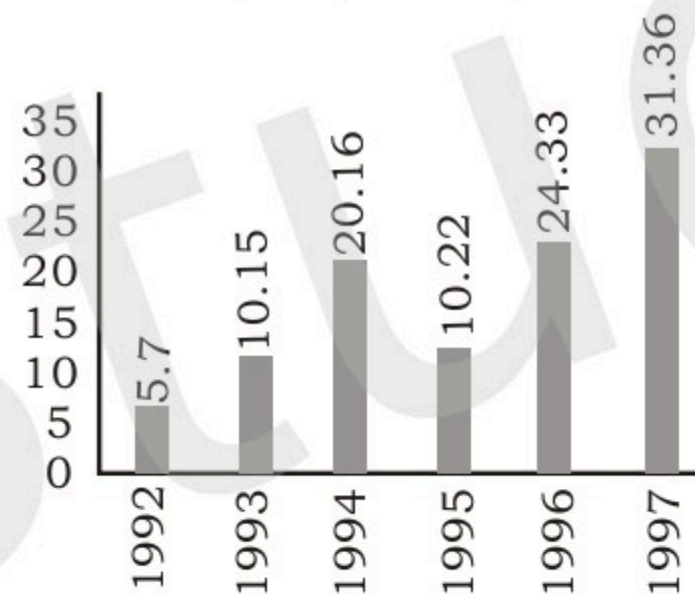
Directions (196-199): Study the histogram of marks (in Mathematics) distribution of 50 students of class IX and answer the following questions.



(SSC CGL Pre Exam 2016)

196. The number of students who have secured marks less than 60 is
 (a) 12 (b) 15 (c) 33 (d) 7
197. The average marks of the students
 (a) 63.2 (b) 45.5 (c) 60.2 (d) 55.5
198. The number of students who have scored between 39 and 80 is
 (a) 22 (b) 18 (c) 37 (d) 15
199. Percentage of students who have secured marks more than 59 is
 (a) 13 (b) 17 (c) 34 (d) 26

Direction (200-203): Study the bar diagram carefully and answer the question. The bar diagram shows the trends of foreign direct investment (FDI) into India from all over the World (in ₹ crores)

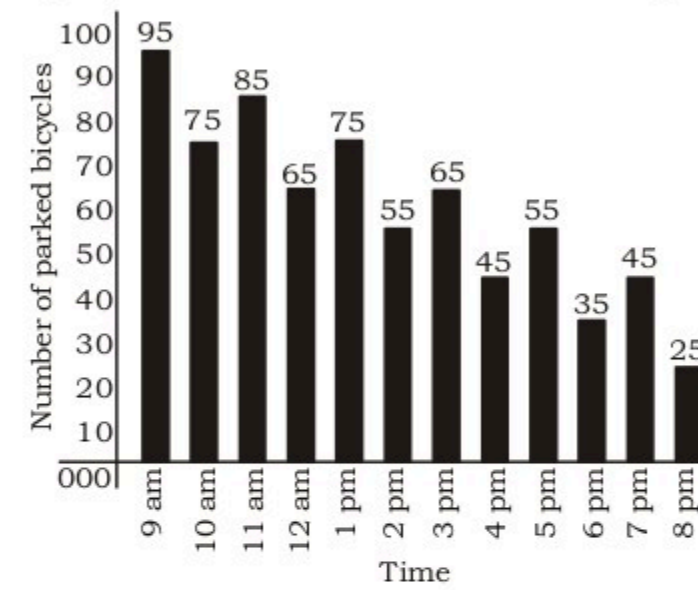


(SSC CGL Pre Exam 2016)

200. The sum of FDI of 1992 and 1993 is
 (a) 15.58 cr (b) 15.85 cr
 (c) 15.22 cr (d) 15.65 cr
201. The year which exhibited the 2nd highest growth percentage in FDI in India over the period shown is
 (a) 1993 (b) 1994 (c) 1997 (d) 1996
202. The ratio of investment in 1997 to the average investment is
 (a) 2 : 1 (b) 1 : 2 (c) 1 : 1 (d) 3 : 1
203. The difference between FDI of 1997 and 1996
 (a) 7.29 (b) 7.03 (c) 7.16 (d) 7.22

Direction (204-207):- Study the graph and answer the following questions.

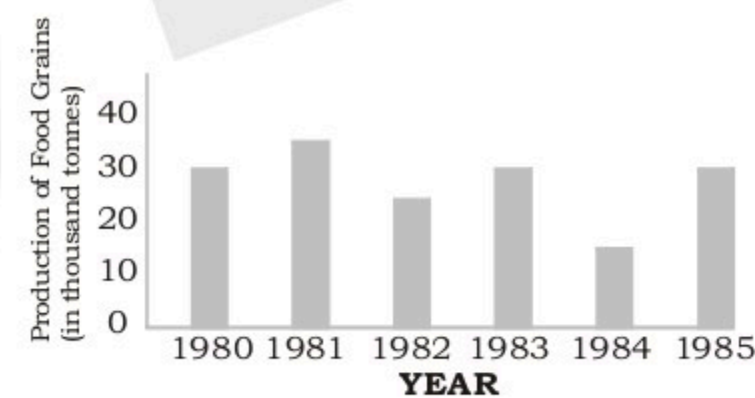
The graph shows the number of bicycles parked in the parking space of a hall at various points of time.



(SSC CGL Pre Exam 2016)

204. Charges for parking is ₹1 per hour. What will be the total collection from 9am to 7pm.
 (a) ₹ 625 (b) ₹ 635 (c) ₹ 685 (d) ₹ 695
205. What is the percentage decrease in number of parked cycles between 7 pm and 8 pm? (in whole number)
 (a) 30 (b) 38 (c) 42 (d) 45
206. What is the average number of parked cycles as seen from the graph?
 (a) 40 (b) 45 (c) 55 (d) 60
207. How many times, as mentioned in the graph, is the number of parked cycles above average?
 (a) 3 (b) 4 (c) 5 (d) 6

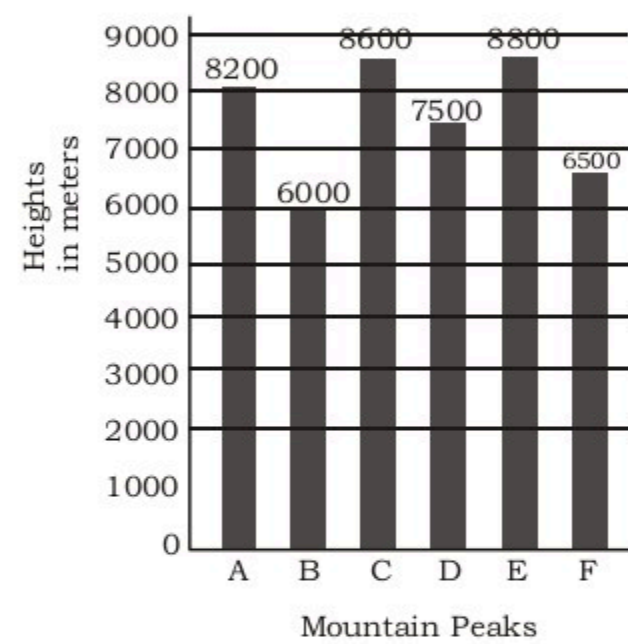
Directions (208-211): The graph shows the production of food grains of a country in different. Study the graph and answer the questions.



(SSC CGL Pre Exam 2016)

208. The sum of the production of food grains in the year 1982 and 1984 is equal to that in the year:
 (a) 1980 (b) 1981 (c) 1983 (d) 1985
209. The difference of the production of food grains for the year 1981 and 1985 is
 (a) 500 tonnes (b) 1000 tonnes
 (c) 5000 tonnes (d) 10000 tonnes
210. The percentage increase in production from 1984 to 1985 was
 (a) 150 (b) 120 (c) 95 (d) 100
211. The two consecutive years in which rate of change of production of food grains is minimum are
 (a) 1980 and 1981
 (b) 1982 and 1983
 (c) 1984 and 1985
 (d) 1983 and 1984

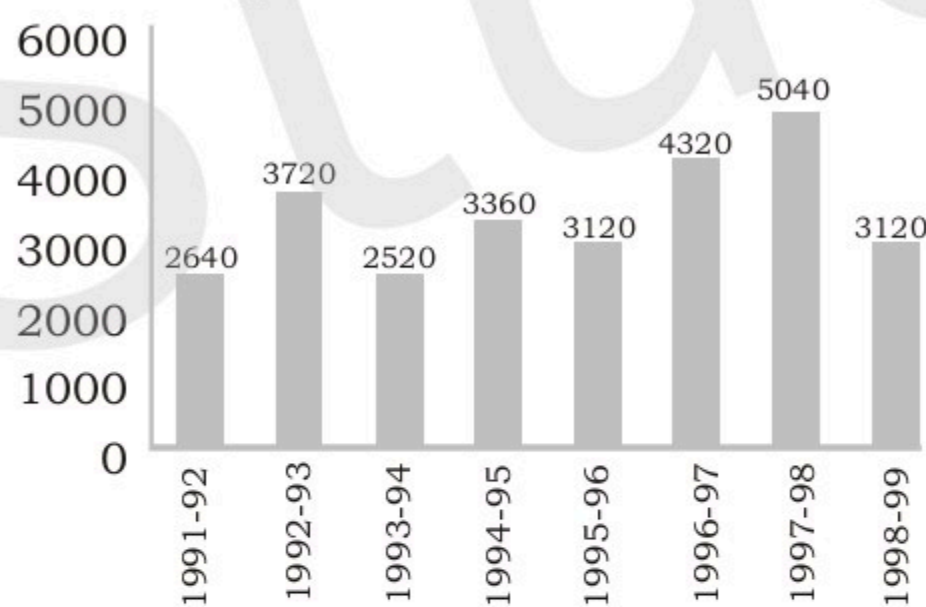
Directions:- (212-215) A bar graph showing the heights of six mountain peaks. Study the bar graph and answer questions



(SSC CGL Pre Exam 2016)

212. The average height of all the peaks (in meters) is
 (a) 7601.5 (b) 7600 (c) 7599.5 (d) 7610
213. Which peak is the second highest?
 (a) B (b) C (c) A (d) E
214. Write the ratio of the heights of the highest peak and the lowest peak
 (a) 22:15 (b) 15:22 (c) 20:13 (d) 13:22
215. When the heights of the given peaks are written in ascending order, what is the average of the middle two peaks?
 (a) 7950 m (b) 7560 m
 (c) 7650 m (d) 7850 m

Directions (216-219): The graph shows the exchange reserves of a country in different years. Study the graph and answer the questions.



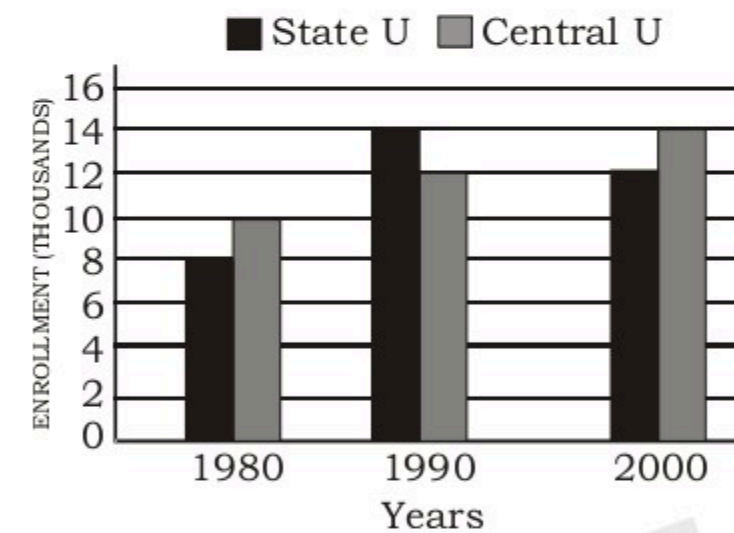
(SSC CGL Pre Exam 2016)

216. The ratio of number of years, in which the foreign exchange reserves are above the average reserves, to those in which the reserves are below the average reserves is
 (a) 2 : 6 (b) 3 : 4 (c) 3 : 5 (d) 4 : 4
217. The exchange reserves in 1996-1997 were approximately what percent of the average exchange reserves over the period under review?
 (a) 95% (b) 110% (c) 115% (d) 124%

218. The percentage increase in the foreign exchange reserves in 1997-98 over 1993-94 is
 (a) 100 (b) 150 (c) 200 (d) 120

219. Ratio of the sum of exchange during the year 1991-92, 1992-93, 1993-94 to that during the years 1995-96, 1996-98 is
 (a) 31 : 35 (b) 35 : 31 (c) 37 : 52 (d) 52 : 37

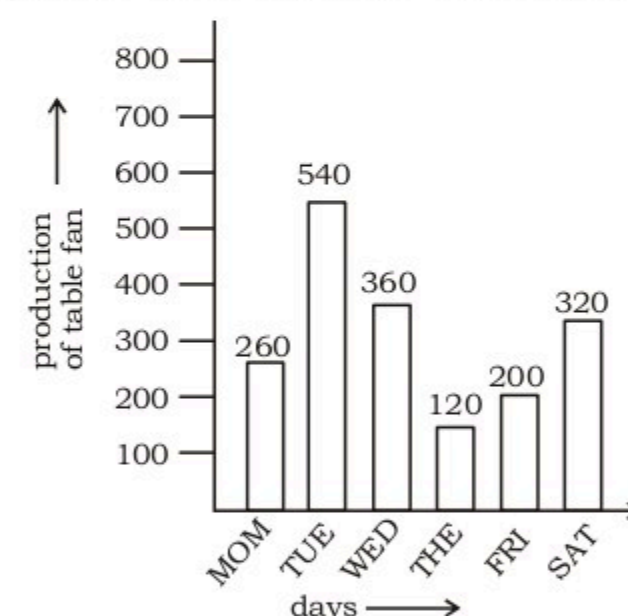
Direction (220-223): Study the following bar graph carefully and answer the questions.



(SSC CGL Pre Exam 2016)

220. In 1990, how many more students were enrolled at State University than at Central University?
 (a) 1505 students (b) 1650 students
 (c) 2000 students (d) 1980 students
221. Total enrollments in both State University and Central University during the year 1980, 1990 and 2000 is.
 (a) 80000 (b) 66000 (c) 70000 (d) 76000
222. Ratio of the total enrollments in the year 1980 and 2000 at the State University and Central University is
 (a) 4 : 5 (b) 2 : 3 (c) 6 : 5 (d) 5 : 6
223. The tuition fee at State University in the year 2000 was 6500 per enrollment. What was the total revenue collected from the tuition fee at State University during that year?
 (a) 80,000,000 (b) 78,000,000
 (c) 65,000,000 (d) 56,000,000

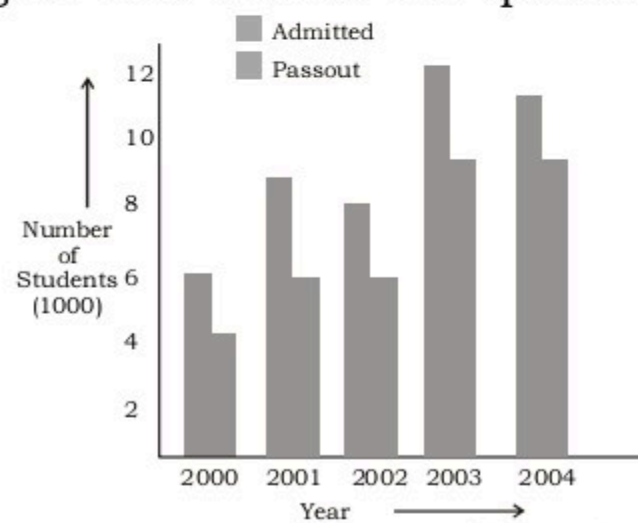
Directions:- (224-227) The bar graph shows the production of table fans in a factory during one week. Study the bar graph and answer the question.



(SSC CGL Pre Exam 2016)

224. The maximum production exceeds the minimum production by:
 (a) 400 (b) 420 (c) 540 (d) 540
225. The average production of table fan in the week is
 (a) 370 (b) 280 (c) 300 (d) 250
226. Ratio of the total production of table fans in the factory from Monday to Wednesday to that from Thursday to Saturday is
 (a) 19:26 (b) 26:19 (c) 29:16 (d) 16:29
227. The average production of table fans on Monday & Tuesdays exceeds the average production of table fans during the week by
 (a) 150 fans (b) 100 fans
 (c) 140 fans (d) 200 fans

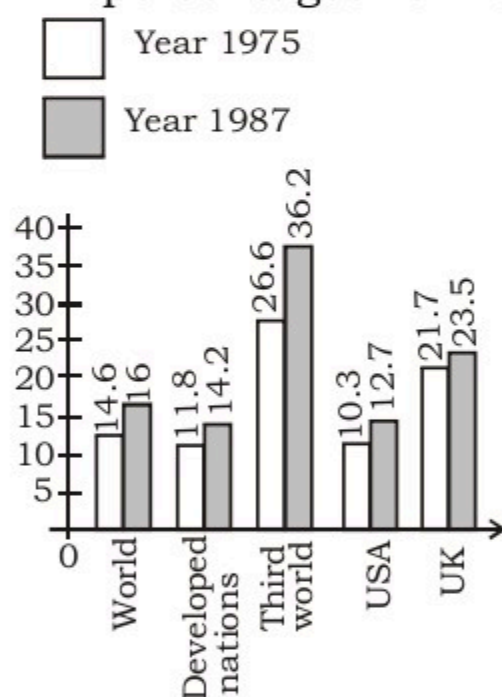
Directions (228-231): The following figure shows the number of students (in thousands) admitted and passed out per year in a college during years 2000 to 2004. study the figure and answer the questions.



(SSC CGL Pre Exam 2016)

228. The percent increase in the number of students admitted in the year 2003 over that in 2001 is
 (a) 133.3 (b) 33.3 (c) 40.3 (d) 66.7
229. During 2000 to 2003 the ratio of the total number of the students passed out to the total number of students admitted is
 (a) 23/17 (b) 17/6 (c) 11/23 (d) 5/7
230. In which of the two years, the pass percentage of students was between 60 to 70?
 (a) 2000 and 2001 (b) 2003 and 2004
 (c) 2001 and 2002 (d) None of these
231. The ratio of the number of students admitted in the year 2002 to the average of the number of students passed out in the years 2003 and 2004 is.
 (a) 7 : 8 (b) 8 : 9 (c) 9 : 8 (d) 8 : 7

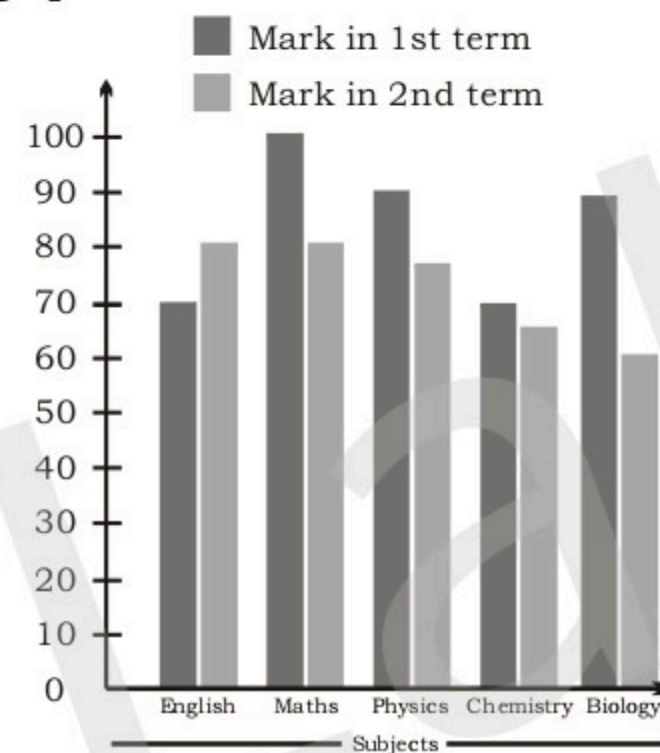
Direction(232-234): Study the following bar graph and answer the question. The Bar graph gives the annual rates of inflation in percentages for 1975 and 1987.



(SSC CGL Pre Exam 2016)

232. From 1975 to 1987, inflation rate increased in the third world countries approximately by
 (a) 10% (b) 20% (c) 30% (d) 36%
233. The change in rate of inflation was least in which of the following.
 (a) Developed Nations
 (b) UK
 (c) World
 (d) Third world
234. Comparing the figures for USA vis-a-vis the developed nations, it can be concluded that.
 (a) USA had better control on inflation
 (b) Developed nations had better control on inflation
 (c) continues to be the same for USA and developed nations
 (d) No conclusions can be drawn

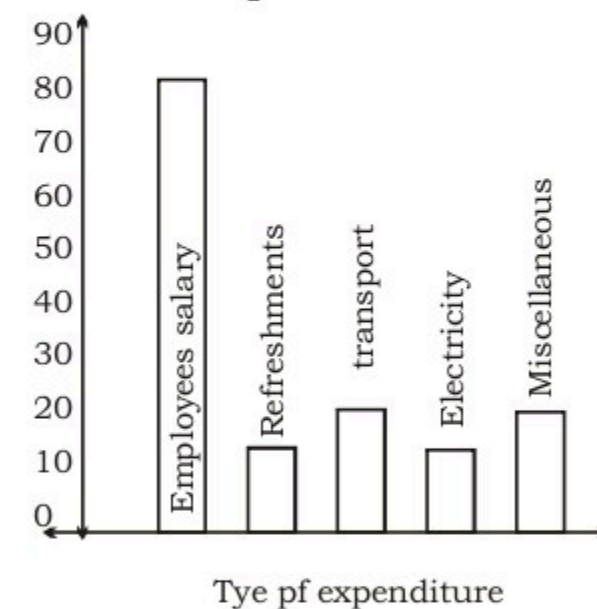
Directions (235-238) Study the bar diagram and answer the following questions.



(SSC CGL Pre Exam 2016)

235. Average marks obtained in Physics for two terms is
 (a) 80.5 (b) 82.5 (c) 72.5 (d) 83.5
236. Difference of marks obtained in both the terms by the students is maximum in
 (a) English (b) Physics
 (c) Biology (d) Mathematics
237. What is the percentage of marks obtained in chemistry for both the terms?
 (a) 76.5 (b) 56.7 (c) 67.5 (d) 75.6
238. The ratio of the average of the marks obtained in Biology for two terms to the average of the marks obtained in English and Mathematics for first term only is
 (a) 43:92 (b) 39:42 (c) 29:34 (d) 23:94

Directions (239-242):- The graph shows the monthly expenditure of a company (unit = 10 lakh). Study the graph and answer the question



(SSC CGL Pre Exam 2016)

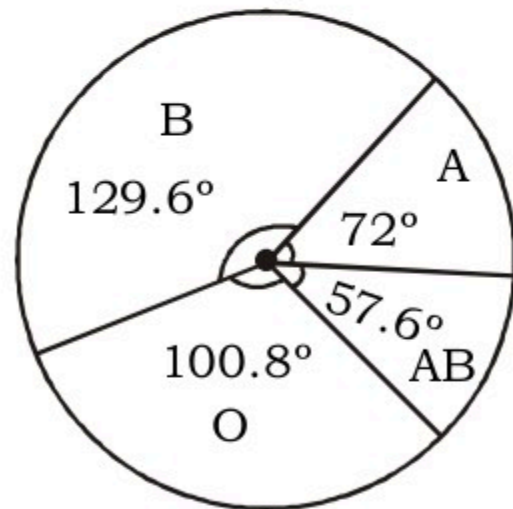
239. The percentage of money spent on miscellaneous is
 (a) $7\frac{2}{17}$ (b) $17\frac{2}{7}$ (c) $11\frac{1}{9}$ (d) $9\frac{2}{7}$

240. The fraction of money spent on refreshments is
 (a) $13\frac{1}{2}$ (b) $\frac{2}{27}$ (c) $\frac{1}{10}$ (d) 10

241. The total monthly expenditure of the company is
 (a) 153 Lakh (b) 315 Lakh
 (c) 135 Lakh (d) 531 Lakh

242. The ratio between transport and employee salary on monthly basis is
 (a) 1 : 4 (b) 4 : 3 (c) 3 : 4 (d) 4 : 1

Directions (243-246): This is a pie chart for the data on A, B, O, AB blood groups of 150 donors. Observe the pie chart and answer the questions



(SSC CGL Pre Exam 2016)

243. The number of donors having group 'O' is:
 (a) 50 (b) 42 (c) 30 (d) 34

(SSC CGL Mains Exam 2016)

244. The number of persons having either blood group 'A' or blood group 'B' is
 (a) 84 (b) 96 (c) 78 (d) 54

(SSC CGL Mains Exam 2016)

245. What is the percentage of donor having blood group 'AB'?
 (a) 61% (b) 26% (c) 16% (d) 36%

(SSC CGL Mains Exam 2016)

246. The ratio of donors blood group 'A' to the average of the donors group 'O', 'B' and 'AB' is
 (a) 4 : 3 (b) 4 : 5 (c) 5 : 4 (d) 3 : 4

(SSC CGL Mains Exam 2016)

Direction (247-251) The following pie-chart shows the monthly expenditure of a family on various items. If the family spends Rs. 825 on clothing answer the question



247. What is the total monthly income of the family ?
 (a) Rs. 8025 (b) Rs. 8250
 (c) Rs. 8520 (d) Rs. 8052

(SSC CGL Mains Exam 2016)

248. What percent of the total income does the family save
 (a) 15 % (b) 50 % (c) 20 % (d) 25 %

(SSC CGL Mains Exam 2016)

249. What is the ratio of expenses on food and miscellaneous?
 (a) 3 : 4 (b) 3 : 2 (c) 2 : 3 (d) 2 : 5

(SSC CGL Mains Exam 2016)

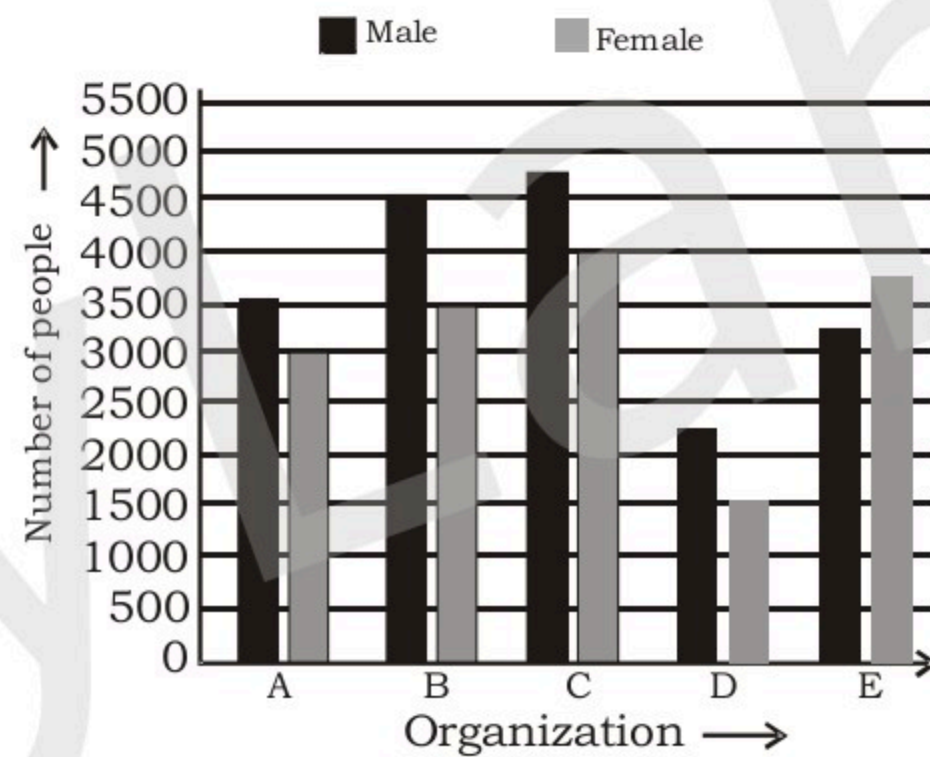
250. What is the average of expenses of clothing and rent
 (a) Rs. 1443.75 (b) Rs. 1344.57
 (c) Rs. 1574.34 (d) Rs. 1734.45

(SSC CGL Mains Exam 2016)

251. The ratio of average of expenses on food, clothing and miscellaneous items to the average of expenses of on saving and rent is
 (a) 3 : 2 (b) 2 : 1 (c) 1 : 3 (d) 1 : 1

(SSC CGL Mains Exam 2016)

Direction (252-257): The following Bar-diagram shows total number of males and females in five different organisations. Study it carefully to answer the questions.



252. What is the difference between the total number of females and the total number of males from all the organisations together?
 (a) 2005 (b) 2050 (c) 2500 (d) 2055

(SSC CGL Mains Exam 2016)

253. By how much percentage is the average number of females from all the organisations together is more than the number of males in organization 'D'?
 (a) 30% (b) 38% (c) 40% (d) 45%

(SSC CGL Mains Exam 2016)

254. What is the ratio of the number of females from the organisations B and C to the number of males from the organisations D and E?
 (a) 12 : 11 (b) 12 : 15 (c) 11 : 15 (d) 15 : 11

(SSC CGL Mains Exam 2016)

255. Males from organisations A and B together from what percent of total number of males from organisations C, D and E together?

(a) 78.04% (b) 87.44%

(c) 47.08% (d) 74.08%

(SSC CGL Mains Exam 2016)



ANSWER KEY



1. (a)
2. (b)
3. (c)
4. (d)
5. (d)
6. (c)
7. (d)
8. (a)
9. (b)
10. (c)
11. (d)
12. (a)
13. (b)
14. (c)
15. (d)
16. (a)
17. (c)
18. (c)
19. (a)
20. (b)
21. (d)
22. (d)
23. (b)
24. (d)
25. (c)
26. (d)
27. (a)
28. (b)
29. (b)

30. (b)
31. (d)
32. (c)
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36. (c)
37. (c)
38. (b)
39. (b)
40. (b)
41. (a)
42. (a)
43. (b)
44. (a)
45. (b)
46. (a)
47. (b)
48. (b)
49. (d)
50. (c)
51. (d)
52. (a)
53. (c)
54. (a)
55. (c)
56. (a)
57. (d)
58. (d)

59. (a)
60. (b)
61. (c)
62. (b)
63. (c)
64. (d)
65. (c)
66. (b)
67. (b)
68. (b)
69. (c)
70. (c)
71. (b)
72. (a)
73. (c)
74. (b)
75. (a)
76. (c)
77. (b)
78. (d)
79. (a)
80. (c)
81. (d)
82. (c)
83. (d)
84. (b)
85. (b)
86. (a)
87. (c)

88. (a)
89. (a)
90. (c)
91. (c)
92. (c)
93. (a)
94. (a)
95. (b)
96. (c)
97. (b)
98. (c)
99. (c)
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102. (c)
103. (d)
104. (c)
105. (a)
106. (c)
107. (a)
108. (c)
109. (a)
110. (d)
111. (a)
112. (a)
113. (b)
114. (c)
115. (c)
116. (d)

117. (d)
118. (c)
119. (b)
120. (b)
121. (c)
122. (a)
123. (c)
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126. (c)
127. (b)
128. (d)
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134. (d)
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139. (c)
140. (c)
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142. (b)
143. (c)
144. (a)
145. (a)

146. (c)
147. (c)
148. (d)
149. (b)
150. (c)
151. (b)
152. (c)
153. (b)
154. (d)
155. (d)
156. (d)
157. (c)
158. (c)
159. (c)
160. (b)
161. (b)
162. (d)
163. (a)
164. (d)
165. (d)
166. (b)
167. (c)
168. (d)
169. (c)
170. (c)
171. (b)
172. (c)
173. (c)
174. (b)

175. (b)
176. (b)
177. (d)
178. (d)
179. (a)
180. (a)
181. (b)
182. (d)
183. (c)
184. (d)
185. (b)
186. (a)
187. (c)
188. (b)
189. (b)
190. (c)
191. (d)
192. (a)
193. (b)
194. (a)
195. (c)
196. (c)
197. (c)
198. (c)
199. (d)
200. (b)
201. (d)
202. (a)
203. (b)

204. (d)
205. (d)
206. (d)
207. (d)
208. (b)
209. (c)
210. (d)
211. (a)
212. (b)
213. (b)
214. (a)
215. (d)
216. (c)
217. (d)
218. (a)
219. (c)
220. (c)
221. (c)
222. (d)
223. (b)
224. (b)
225. (c)
226. (c)
227. (b)
228. (b)
229. (d)

230. (a)
231. (d)
232. (d)
233. (c)
234. (a)
235. (b)
236. (c)
237. (d)
238. (c)
239. (c)
240. (b)
241. (c)
242. (a)
243. (b)
244. (a)
245. (c)
246. (c)
247. (b)
248. (a)
249. (b)
250. (a)
251. (d)
252. (c)
253. (c)
254. (d)
255. (a)



EXPLANATION

- (a) Both the lines in the graph intersect at 10:30 am
- (b) Average Speed = $\frac{120}{\frac{5}{2}} = 48 \text{ km/h}$
- (c) Time = $11:30 - 9:00 = 2\frac{1}{2}$ hours
- (d) 80, It clear from the graph
- (d) Total accidents = $230 + 150 + 120 + 160 + 40 + 200 + 100 = 1000$
Percentage of accidents involving two wheelers and two wheelers = $\frac{230}{1000} \times 100 = 23\%$
Percentage of accidents involving two wheelers and other subjects = $\frac{770 \times 100}{1000} = 77\%$
 \therefore Required difference = $77 - 23 = 54\%$
- (c) Two wheelers + Cars + Buses + Stationary vehicles = $230 + 150 + 120 + 100 = 600$
 $\therefore \frac{600}{1000} \times 100 = 60\%$ Ans.
- (d) $\therefore 360^\circ = 1000$ Accidents
 $1^\circ = \frac{1000}{360^\circ}$
 $36^\circ = \frac{1000}{360^\circ} \times 36^\circ = 100$ Accidents
It is the accidents of stationary vehicles
- (a) Required Percentage = $\left(\frac{40+200}{1000}\right) \times 100 = \frac{24000}{1000} = 24\%$
- (b) Required difference = $\frac{160-120}{1000} \times 100 = 4\%$
- (c) Required answer = $\frac{35 \times 30}{100} + \frac{35 \times 15}{100} + \frac{35 \times 15}{100} = \frac{35}{100}(30+15+15) = \frac{35 \times 60}{100} = 21$ lakhs.
- (d) Percentage variation
Modal A = $\frac{40-30}{30} \times 100 = 33\frac{1}{3}\%$
Modal B = $\frac{20-15}{15} \times 100 = 33\frac{1}{3}\%$
Modal C = $\frac{20-15}{20} \times 100 = 25\%$
- (a) B types mobile produced in 2007 = $\frac{35 \times 15}{100}$
B type mobile produced in 2008 = $\frac{44 \times 20}{100}$
Required Difference = $\frac{44 \times 20}{100} - \frac{35 \times 15}{100} = \frac{880}{100} - \frac{525}{100} = \frac{355}{100}$ Lakhs = 355000
- (b) Required production = $\frac{44 \times 30}{100}$ lakhs = 1320000
- (c) 'B' type production in 2007 = $35 \times \frac{10}{100}$
'B' type production in 2008 = $44 \times \frac{10}{100}$
Required answer = $\left(35 \times \frac{10}{100} + 44 \times \frac{10}{100}\right) \times \frac{15}{100} = 118500$
- (d) Expenditure on Education in April = $24000 \times \frac{47}{100} = \text{Rs. } 11280$
Expenditure on education in May = $25000 \times \frac{50}{100} = \text{Rs. } 12500$
Percentage increase = $\frac{12500 - 11280}{11280} \times 100 = 10.82\%$
- (a) Required ratio = $\frac{24000 \times 18}{100} : \frac{25000 \times 2}{100} = 24 \times 18 : 25 \times 2 = 216 : 25$
- (c) Expenditure on grocery = $\frac{25000 \times 14}{100} = \text{Rs. } 3500$
Expenditure on electricity = $\frac{25000 \times 9}{100} = \text{Rs. } 2250$
- (c) C.P = $\frac{180 \times 100}{120} = \text{Rs. } 150$
 \therefore Cost of Papers = $\frac{150 \times 15}{100} = ₹ 22.50$
- (a) Required percentage = $\frac{20-15}{20} \times 100 = 25\%$
- (b) Required percentage = $\frac{108^\circ}{360^\circ} \times 100 = 30\%$

21. (d) Expenditure on labourers:

$$\text{Year 1991} \Rightarrow \frac{360000 \times 90^\circ}{360^\circ} = \text{Rs. } 90000$$

$$\text{Year 2001} \Rightarrow \frac{864000 \times 100^\circ}{360^\circ} = \text{Rs. } 240000$$

$$\begin{aligned} \text{Percentage increase} &= \frac{240000 - 90000}{90000} \times 100 \\ &= 166\frac{2}{3}\% \end{aligned}$$

22. (d) Expenditure on Steel

$$\text{Year 1991} = \frac{50^\circ}{360^\circ} \times 360000 = \text{Rs. } 50000$$

$$\text{Year 2001} = \frac{864000}{360} \times 60 = \text{Rs. } 144000$$

23. (b) Wages Numbers of workers

120	12		
140	26 - 12	=	14
160	34 - 26	=	8
180	40 - 34	=	6
200	50 - 40	=	10

$$\therefore \text{Required percentage} = \frac{8}{50} \times 100 = 16\%$$

24. (d) Median = $\frac{L.V + H.V}{2} = \frac{120 + 200}{2} = \text{Rs. } 160$

25. (c) 2001: $\frac{I}{E} = \frac{1}{1} = \frac{4}{4}$

2002: $\frac{I}{E} = \frac{75}{100} = \frac{3}{4}$

$$\text{Income \%} = \frac{4-3}{4} \times 100 = 25\%$$

26. (d) It is clear from the graph

27. (a) $\frac{\text{Exports}}{\text{Imports}} = 1.75 = \frac{175}{100} = \frac{7}{4}$

After 40% increase in imports

$$\therefore \text{imports} = 4 \times \frac{140}{100} = \frac{560}{100} = \frac{56}{10}$$

$$\frac{\text{Exports}}{\text{Imports}} = \frac{7 \times 10}{56} = \frac{70}{56} = \frac{5}{4} = 1.25$$

28. (b) In the year 2005

$$\begin{aligned} \text{Imports of company x} &= \text{Rs. } 180 \text{ crores} \\ \text{Exports} &= 1.75 \times 180 = \text{Rs. } 315 \text{ crores} \\ \text{Exports of company y} &= \text{Rs. } 157.5 \text{ crore} \end{aligned}$$

$$\therefore \text{Imports of company y} = \frac{157.5}{0.75} = 210 \text{ crores}$$

29. (b) Required ratio = 45 : 30 = 3 : 2

30. (b) Production of sandal perfume in 1995 = 20%
Production of sandal perfume in 1997 = 20%

$$\text{Required ratio} = \frac{20}{20} = 1$$

31. (d) Production of jasmine perfume in 1997 = 30%

$$\text{of } 5000 = \frac{30}{100} \times 5000 = 1500$$

32. (c) Total income = Rs. 30.75 Thousand

$$\text{Average} = \frac{30.75}{5} \text{ Rs. } 6.15 \text{ thousand} = \text{Rs. } 6150$$

33. (a) Income range of the person (4.25 - 8.75)

34. (a) Percentage increase in year 1996
 $= \frac{225 - 120}{120} \times 100 = 87.5\%$

Percentage increase in year 1997

$$= \frac{(375 - 225)}{225} \times 100 = 67\%$$

35. (d) Average of total investment

$$= \frac{1}{6} (120 + 225 + 375 + 330 + 525 + 420)$$

$$= \frac{1}{6} \times 1995 = \text{Rs. } 332.5 \text{ Lakhs}$$

$$\text{Average of sales} = \frac{200 + 300 + 500 + 400 + 600 + 460}{6}$$

$$= \frac{2460}{6} = \text{Rs. } 410$$

$$\text{Difference} = 410 - 332.5 = 77.5 \text{ Lakhs}$$

36. (c) Required number of students = 25 + 7 + 4 + 2 = 38

37. (c) Required number of students = 6 + 8 = 14

38. (b) Maximum Number of students in 150-160 class interval = 25

39. (b) Average production of whole duration

$$= \frac{476}{6} = 79.2 \approx 79$$

79, which is total production in 2000.

40. (b) Candidates qualified under area discipline in

$$2010 = \frac{900 \times 19}{100} = 171$$

$$\text{In } 2011 = \frac{850 \times 18}{100} = 153$$

$$\text{Difference} = 171 - 153 = 18$$

41. (a) Candidates qualified under science discipline

$$\text{in year } 2006 = \frac{780 \times 40}{100} = 312$$

$$\text{Year } 2007 \Rightarrow 650 \times \frac{42}{100} = 273$$

$$\text{Year } 2008 \Rightarrow \frac{500 \times 45}{100} = 225$$

$$\text{Year } 2009 \Rightarrow 620 \times \frac{45}{100} = 279$$

$$\text{Year } 2010 \Rightarrow 900 \times \frac{35}{100} = 315$$

$$\text{Year } 2011 \Rightarrow 850 \times \frac{42}{100} = 357$$

Required average difference

$$= \frac{1}{3} \{ (279 + 315 + 357) - (312 + 273 + 225) \}$$

$$= \frac{1}{3} (951 - 810) = \frac{1}{3} \times 141 = 47$$

42. (a) Change into class interval

Height	No. of girls
135 – 140	04
140 – 145	07
145 – 150	18
150 – 155	11
155 – 160	06
160 – 165	05

Required answer = $11 + 6 + 5 = 22$.

43. (b) Take value of class interval 155 – 160 and 160 – 165 i.e. 157.5 and 162.5. Multiply them by their respective frequency and then divide by

$$\text{total no. of girls} = \frac{157.5 \times 6 + 162.5 \times 5}{11}$$

$$= \frac{945 + 812.5}{11} = \frac{1757.5}{11} = 159.8 \text{ cm.}$$

44. (a) Percentage of people below 36 years
 $= (20 + 18.25 + 16.75)\% = 55\%$
 $55\% = 22 \text{ millions}$

$$1\% = \frac{22}{55}$$

$$12.5\% = \frac{22}{55} \times 12.5 = 5 \text{ millions}$$

45. (b) Difference = 0.975 millions
 $(18.25 - 15)\% = 0.975 \text{ millions}$
 $3.25\% = 0.975$

$$1\% = \frac{0.975}{3.25}$$

$$100\% = \frac{0.975}{3.25} \times 100 = 30 \text{ millions}$$

46. (a) Number of employees in HR department

$$= \frac{5}{100} \times 800 = 40$$

$$\text{Numbers of females} = 40 - 12 = 28$$

$$\text{Ratio} = 28 : 40 \rightarrow 7 : 10$$

47. (b) Number of employees in marketing department

$$= \frac{24}{100} \times 800 = 192$$

$$\therefore \text{Required percentage} = \frac{165}{192} \times 100 = 86\%$$

48. (b) Number of employees in IT department

$$= 800 \times \frac{20}{100} = 160$$

$$\text{Number of females} = 160 - 74 = 86$$

$$\therefore \text{Required percentage} = \frac{86}{800} \times 100 = 10.75\%$$

49. (d) Total employees in Marketing department = 192

$$\text{Males} = 165$$

$$\text{Females} = 192 - 165 = 27$$

$$\therefore \text{Required Ratio} = 165 : 27 = 55 : 9$$

50. (c) Number of examinees getting more than the average marks = $72 + 48 + 24 + 8 = 152$

51. (d) Number of students who got above 80% marks
 $= 24 + 8 = 32$

$$\therefore \text{Required percent} = \frac{32}{273} \times 100 = 11.72\%$$

52. (a) Number of students who got marks above 60% and below 80% = $72 + 48 = 120$

$$\therefore \text{Required percentage} = \frac{120 \times 100}{273} = 43.95\%$$

53. (c) Number of students who got 40% or less marks
 $= 2 + 4 + 12 + 26 = 44$

$$\therefore \text{Required percentage} = \frac{44}{273} \times 100 = 16.11\%$$

54. (a) Total number of students in year 2007 = 190
 Students who passed in first division = 30

$$\text{Required percent} = \frac{30}{190} \times 100 = \frac{300}{19} = 15\frac{15}{19}\%$$

55. (c) Total students in the year 2008 = 240
 passed students = 180

$$\therefore \text{Required percentage} = \frac{180}{240} \times 100 = 75\%$$

56. (a) Students who passed in third division in 2006
 $\Rightarrow 140 - 80 = 60$

57. (d) Pass percentage :-

$$\text{Year 2006} = \frac{140}{170} \times 100 = 82.35\%$$

$$\text{Year 2007} = \frac{150}{190} \times 100 = 78.94\%$$

$$\text{Year 2008} = \frac{180}{240} \times 100 = 75\%$$

58. (d) It is clear from the graph.

$$\text{Minimum sales is in 1989} = 55 \text{ lakh bottles}$$

59. (a) Average annual sales during 1988 – 1993

$$\text{Cool up} = \frac{25 + 6 + 19 + 15 + 25 + 30}{6}$$

$$= \frac{120}{6} = 20 \text{ lakh bottles}$$

$$\text{Pep up} = \frac{30 + 35 + 30 + 25 + 20 + 20}{6} = \frac{160}{6}$$

$$= 26\frac{2}{3} \text{ lakh bottles}$$

60. (b) Sales of pep-up:-

$$\text{Year 1989} = 35 \text{ lakh bottles}$$

$$\text{Year 1990} = 30 \text{ lakh bottles}$$

$$\therefore \text{Required percent} = \frac{35 - 30}{35} \times 100 = \frac{100}{7} = 14.28 \approx 14$$

61. (c) Sales of cool up in 1989 = 6 lakh bottles

$$\text{Sales of cod sip in 1990} = 19 \text{ lakh bottles}$$

$$\text{Required percent} = \frac{19 - 6}{6} \times 100 = \frac{13}{6} \times 100 = 216\%$$

62. (b) Sales of Dew drop in 1992 = 30 lakh bottles

63. (c) Average annual sales of Dew-Drop

$$= \frac{10 + 15 + 15 + 15 + 30 + 25}{6} = \frac{110}{6} = 18.3 \text{ lakh bottles}$$

$$\text{Average sales of cool - up} = \frac{120}{6} = 20 \text{ lakh bottles}$$

64. (d) Companies having more demand than production are A, C, E = 3
Companies having more production than demand (B and D) = 2
 \therefore Required ratio = 3 : 2
65. (c) Required difference

$$= \frac{3300 + 1200 + 3000 + 600 + 2500}{5}$$

$$- \frac{2200 + 2700 + 1500 + 1800 + 1000}{5} = 2120 - 1840 = 280$$
66. (b) Required percentage = $\frac{600}{2500} \times 100 = 24\%$
67. (b) Required ratio = 900 : 2250 \Rightarrow 2 : 5
68. (b) Take ratio, Required answer = $\frac{9}{12} = \frac{3}{4} = 0.75$
69. (c) Total production of state A = 6 + 14 + 21 = 41 lakhs
Total production of state B = 12 + 18 + 18 = 48 lakhs
41 < 48
70. (c) Average production in 1992 - 1993

$$= \frac{6 + 12 + 5 + 16 + 8}{5} \Rightarrow \frac{47}{5} = 9.4 \text{ lakhs}$$

Average production in 1993 - 94

$$= \frac{14 + 18 + 9 + 9 + 14}{5} \Rightarrow \frac{64}{5} = 12.8 \text{ lakh}$$
71. (b) Average production of the five states in the year

$$= 1994 - 95 = \frac{21 + 18 + 15 + 12 + 7}{5} = \frac{73}{5} = 14.6 \text{ lakh}$$
72. (a) Maximum demand is Chemistry subject.
73. (c) Botony
74. (b) Required percentage increase = $\frac{2580 - 2170}{2170} \times 100$

$$= \frac{410}{2170} \times 100 = 18.89\%$$
75. (a) Required percentage increase

$$= \frac{1454 - 1240}{1240} \times 100 = \frac{214}{1240} \times 100$$

$$\Rightarrow 17.258\% = 17.26\%$$
76. (c) Required percentage increase

$$= \frac{2230 - 1870}{1870} \times 100 = \frac{360}{1870} \times 100 = 19.25\%$$
77. (b) Required answer = 4 patients
78. (d) Required answer = 4 + 3 + 2 + 1 = 10
79. (a) Required answer = 8 + 7 + 5 = 20
80. (c) Total number of patients

$$= 1 + 4 + 8 + 7 + 5 + 4 + 3 + 2 + 1 = 35$$

Patients of age less than 45 years = 1 + 4 + 8 = 13
Required percent = $\frac{13}{35} \times 100 = 37.14\% = 37\%$

81. (d) 11% of 35 = $\frac{11}{100} \times 35$

$$= 3.85 \approx 4$$

Patients between 35 years and 40 years = 4

Patients between 55 years and 60 years = 4

82. (c) People in south zone = 1450 + 1120 + 420 + 350 + 50 = 3390

People who take coffee at least once a day

$$= 1120 + 1450$$

$$= 2570$$

Required percentage = $\frac{2570}{3390} \times 100$

$$= 75.811\%$$

83. (d) People who take coffee only once a week in there zones = 620 + 540 + 350 = 1510

Required percent = $\frac{1510}{11050} \times 100 = 13.66 \approx 14\%$

84. (b) Number of people who take coffee more than 3 times a day = 410 + 310 + 700 + 1450 = 2870
Total number of people who do not take coffee at all = 950 + 430 + 620 + 50 = 2050
Required ratio = 2870 : 2050

$$= 1.4 : 1$$

85. (b) Average = $\frac{\text{Total consumption}}{\text{Number of month}}$

$$\Rightarrow \text{Average consumption of electricity in 2012}$$

$$= \frac{600 + 700 + 400 + 300 + 200}{5} = \frac{2200}{5} = 440 \text{ units}$$

Only in two months (July and August) the consumption is greater than average consumption

86. (a) Total consumption of electricity in 2013

$$= 500 + 500 + 400 + 3500 + 500 = 2250 \text{ units}$$

$$\Rightarrow \text{Total consumption of electricity in 2012}$$

$$= 600 + 700 + 400 + 300 + 200 = 2200 \text{ units}$$

$$\text{Increased \%} = \left(\frac{2250 - 2200}{2200} \times 100 \right) \%$$

$$= 2.27\% \text{ increased}$$

87. (c) Difference in units consumed in 2012 and 2013
Difference in July = 600 - 550 = 50 units
Difference in August = 700 - 500 = 200 units
Difference in September = 400 - 400 = 0 units
Difference in October = 350 - 300 = 50 units
Difference in November 500 - 200 = 300 units
In November it is largest

88. (a) Average consumption of electricity in 2013

$$= \frac{2250}{5} = 450 \text{ units}$$

89. (a) Here, $100\% = 360^\circ$

$$1\% = \left(\frac{18}{5}\right)^\circ$$

$\Rightarrow 33\%$ of Income = Market Tax = 165 crore

$$= \frac{33}{100} \times \text{Income} = 165 \text{ crore}$$

$$\Rightarrow \text{Income} = \frac{165 \times 100}{33} = 500 \text{ crores}$$

\Rightarrow Then total income from other sources
= $(100-33)\%$ of 500 crores
= 335 crores

90. (c) If total income in 1 year = 733 crores

\Rightarrow Income from income tax and excise
= $(10+35)\%$ of 733 crores = 329.85 crores

91. (c) Let the amount permitted to be collected = ₹ x

$$\begin{aligned} x &= 4910 \times \left(1 + \frac{10}{100}\right) \\ &= \left(4910 \times \frac{110}{100}\right) = 491 \times 11 = ₹ 5401 \text{ crores} \end{aligned}$$

92. (c) The amount require for compensation

$$= 11,486 - 9695 = ₹ 1791$$

% increase in market borrowing

$$= \frac{1791}{29952} \times 100\% = 5.9\% \approx 6\% \text{ (approx)}$$

93. (a) Total funds = 29,952 + 11,

$$486 + 5252 + 4910 + 6000 = 57600$$

$$57600 = 360^\circ$$

$$\text{then } 29,952 = \frac{29952}{57600} \times 100 = 52^\circ$$

94. (a) Required ratio = $\frac{(A+D)}{(B,C,E \text{ and } F)}$

$$= \frac{2}{4} = \frac{1}{2}$$

Required ratio = 1 : 2

95. (b) Required% = $\frac{\text{Demand of B}}{\text{profit of F}} \times 100\%$

$$= \frac{3150}{4500} \times 100 = 70\%$$

96. (c) Required answer

$$= \frac{\text{Production of A}}{\text{Demand of C}} \times 100$$

$$= \frac{1450}{2600} \times 100\% = 55\% \text{ (App.)}$$

97. (b) For 1997 For 1998

$$100\% = 42980, 100\% = 48640$$

$$1\% = \frac{42980}{100} \quad 1\% = \frac{48640}{100}$$

For C

For D

$$10\% = \frac{42980}{100} \times 10$$

$$9\% = \frac{48640}{100} \times 9$$

$$= 4298$$

$$= 4377.6$$

Option (b) is correct answer.

98. (c) Change was maximum in B

$$\frac{48640}{100} \times 10 - \frac{42980}{100} \times 6 = 2285.2$$

$$99. (c) B \text{ in } 1997 = \frac{42980 \times 6}{100} = 2578.8$$

$$B \text{ in } 1998 = \frac{48640 \times 10}{100} = 4864$$

$$\text{Difference} = 4864 - 2578.8 = 2285 \text{ (Approx)}$$

100. (b) D = 5000

$$D\% = \frac{5000}{48640} \times 100 = 10.27 \text{ (Approx)}$$

$$101. (c) A \text{ in } 1997 = \frac{42980}{100} \times 20$$

$$A \text{ in } 1998 = \frac{48640}{100} \times 22$$

$$\begin{aligned} \text{Required \%} &= \frac{\frac{48640 \times 22}{100}}{\frac{42980}{100} \times 20} \times 100 = \text{(Approx)} \\ &= \frac{945560}{859600} = 115 \end{aligned}$$

$$102. (c) \frac{150 - 125}{150} \times 100$$

$$= \frac{25}{150} \times 100 = 16.6\% \sim 16.3$$

103. (d) P \rightarrow 100 + 125 + 200 + 225 + 275 + 275 = 1200

$$Q \rightarrow 175 + 150 + 125 + 175 + 175 + 275 = 1025$$

$$P : Q$$

$$1200 : 1025$$

$$\Rightarrow 48 : 41$$

$$104. (c) \frac{\text{Type Q (2010)}}{\text{Type P (2014)}} \times 100$$

$$\Rightarrow \frac{150}{275} \times 100 = 54.5$$

105. (a) Average production (Type P) = 200
No. of years production of Type P is
higher than average = 3

$$106. (c) \frac{100+200}{150+225} \times 100 \Rightarrow \frac{300}{375} \times 100 = 80\%$$

107. (a) The no. of students securing marks in the range 90 – 100 = 10

108. (c) The range of marks obtained by maximum no. of students is = 50 – 60

109. (a) Total number of students = 210.
no. of students securing marks less than 50 – 60

$$\% \text{ of students} = \frac{60}{210} \times 100 = 28\frac{4}{7}\%$$

110. (d) Total number of students are = 210

111. (a) According to the question,

$$\Rightarrow 100.17 \times \frac{x}{100} = (77.23 - 76.23)$$

$$\Rightarrow x = \frac{100}{100.17} \Rightarrow x = 0.99860\%$$

$$\Rightarrow x = .1\% \text{ (Approx.)}$$

112. (b) The average production during (1920 – 1927)

$$\frac{71.30+43.51+67.66+76.23+77.23+88.93+91.75+100.17}{8}$$

$$= 77.0975 \text{ (million tons)}$$

The required number of year

$$= 4 \text{ (1920, 1921, 1922, 1923)}$$

113. (b) Required Ratio

$$= \frac{\text{Production of steel in 1924+1925}}{\text{Production of steel in 1923+1927}}$$

$$= \frac{77.23+88.93}{76.23+100.17} = \frac{166.16}{176.4} = \frac{2077}{2205}$$

114. (c) The average production during (1920 – 1927)

$$\frac{71.30+43.51+67.66+76.23+77.23+88.93+91.75+100.17}{8}$$

$$= 77.0975 \text{ (million tons)}$$

115. (c) Expenditure in 2001 of R = 45

$$\text{Expenditure in 2000 of R} = 45 \times \frac{100}{120} = 37.5$$

$$\begin{aligned} \text{The income of company in 2000} &= 37.5 \times \frac{100}{90} \\ &= 41.67 \end{aligned}$$

116. (d) Total income of all are = 35 + 50 + 40 + 40 + 50
= 215

$$\begin{aligned} \text{Total expenditure of all are} &= 45 + 40 + 45 + 30 + 45 \\ &= 205 \end{aligned}$$

$$\text{Saving} = 215 - 205 = 10$$

$$\text{Profit\%} = \frac{10}{215} \times 100 = 4.65\% \text{ profit}$$

117. (d) Income of company q in 2001 = 40

$$\text{Income of company Q in 2000} = 40 \times \frac{100}{110} = 36.36$$

$$\text{Profit in 2000} = 36.36 \times \frac{20}{100} = 7.27$$

$$\therefore \text{Expenditure in 2000} = 36.36 - 7.27 = 29.09$$

118. (c) Income of M & N in = 35 + 50 = 85

$$\text{Expenditure of M \& N is} = 45 + 40 = 85$$

\therefore No loss and No profit

119. (b) Maximum percentage of profit in the year

$$= 2001 \text{ in Q} = \frac{10}{40} \times 100 = 25\%$$

$$120. (b) \frac{\text{production of x}}{\text{production of y}} = \frac{25+50+40}{35+40+50}$$

$$\Rightarrow \frac{115}{125} = \frac{23}{25}$$

$$121. (c) \Rightarrow \frac{40-25}{25} \times 100$$

$$\Rightarrow \frac{15}{25} \times 100 = 60\%$$

122. (a) Production of company z (1998) = 45 lakh

Production of company y (1996) = 25 lakh

Difference = 20 lakh tonnes

$$123. (c) \text{Average production of x} = \frac{190}{5}$$

$$= 38 \text{ lakh tonnes}$$

$$\text{Average production of y} = \frac{185}{5} = 37 \text{ lakh tonnes}$$

$$\begin{aligned} \text{Average production of y} &= \frac{190}{5} = 38 \text{ lakh tonnes} \\ (\text{x and z}) &\text{ is maximum} \end{aligned}$$

$$124. (a) 1996 \text{ (Percentage is maximum)} = \frac{10}{25} \times 100 = 40\%$$

125. (b) Excise duty + custom duty : other

$$41\% + 14\% : 10\%$$

$$55\% : 10\%$$

$$11 : 2$$

126. (c) Excise duty = 41%

$$\text{Total revenue} \times \frac{41}{100} = 28,618$$

$$\text{Total revenue} = 28618 \times \frac{100}{41} = \text{Rs. } 69,800 \text{ crores}$$

127 (b) Corporation tax = x × Excise duty

$$9 = x \times 41$$

$$x = \frac{9}{41}$$

$$128. (d) \begin{array}{lcl} \text{Custom duty} & : & \text{Income tax} \\ 14 & : & 26 \\ 7 & : & 13 \end{array}$$

$$129. (a) \begin{array}{l} \text{Total Investment of A \& B in 1995} \\ = 2923.1 + 7081.6 = \text{Rs. } 10,004.7 \\ \text{Total investment of A \& B in 1996} \\ = 3489.5 + 8352 = \text{Rs. } 11,841.5 \end{array}$$

$$\text{Increase \%} = \frac{11,841.5 - 10,004.7}{10,004.7} \times 100$$

$$= \frac{1836.8}{10,004.7} \times 100 = 18\% \text{ (Approx.)}$$

$$130. (a) \text{Investment of A \& B in electricity \& thermal energy in 1995}$$

$$= 815.2 + 2065.8 + 632.4 + 1232.7 = 4746.1$$

$$\begin{array}{l} \text{Total Investment of A \& B in 1995} \\ = 2923.1 + 7081.6 = 10004.7 \end{array}$$

$$\begin{array}{l} \text{Required Percentage} = \frac{4746.1}{10004.7} \times 100 \\ = 47\% \text{ (approx.)} \end{array}$$

$$131. (a) \text{Chemical\%} = \frac{986.4 - 745.3}{745.3} \times 100$$

$$= \frac{241.1 \times 100}{745.3} = 32.34$$

$$\text{Solar\%} = \frac{1792.1 - 1363.5}{1363.5} \times 100$$

$$= \frac{428.6}{1363.5} \times 100 = 31.4\%$$

$$\text{Electricity\%} = \frac{2365.1 - 2065.8}{2065.8} \times 100$$

$$= \frac{299.3}{2064.8} \times 100 = 14.4\%$$

$$\text{Nuclear\%} = \frac{2182.1 - 1674.3}{1674.3} \times 100$$

$$= \frac{507.8}{1674.3} \times 100 = 30.3\%$$

$$132. (b) \begin{array}{l} \text{Total Investment of A} = 2923.1 + 3489.5 \\ = 6412.6 \end{array}$$

$$\text{Total Investment of B} = 7081.6 + 8352 = 15433.6$$

$$\text{Times} = \frac{15433.6}{6412.6} = 2.4 \text{ (approx.)}$$

$$133. (b) \begin{array}{l} \text{Difference of 1995 \& 1996} = 8352 - 7081.6 \\ = 1270.4 \end{array}$$

$$\text{Increase\%} = \frac{1270.4}{7081.6} \times 100 = 17.9\% \text{ (approx.)}$$

$$\begin{array}{l} \text{B Investment in 1997} = \frac{117.9}{100} \times 8352 \\ = \text{Rs. } 9850 \text{ crore (approx.)} \end{array}$$

$$134. (d) \text{Average no. of girls} = \frac{70 + 100 + 50 + 80 + 90}{5}$$

$$= \frac{390}{5} = 78$$

Class VI boys is nearest to the average no. of girls passed per class.

$$135. (d) \text{Total no. of boys} = 80 + 40 + 90 + 70 + 70 = 350$$

$$\text{Average} = \frac{350}{5} = 70$$

$$136. (d) \text{Class VI} = 80 + 70 = 150$$

$$\text{Class VII} = 100 + 40 + 140$$

$$\text{Class VIII} = 90 + 50 + 140$$

$$\text{Class IX} = 80 + 70 = 150$$

$$\text{Class X} = 90 + 70 = 160 \text{ (highest)}$$

Class X is highest no. of students passed.

$$137. (c) \text{Required Ratio} = \frac{40 + 90 + 70}{100 + 50 + 80} = \frac{200}{230} = \frac{20}{23}$$

$$138. (c) \text{Number of people smoking cigarettes}$$

$$= \frac{180}{360} \times 119060 = 59530$$

$$139. (c) \text{Required percentage} = \frac{18^\circ}{360} \times 100 = 5\%$$

$$140. (c) \text{Number of people preferring Bidi}$$

$$= \frac{90}{360} \times 119060 = 29765$$

$$141. (b) \text{Required People} = \frac{180 - 36}{360} \times 119060$$

$$= \frac{144}{360} \times 119060 = 47624$$

$$142. (b) \begin{array}{l} P = 180^\circ + 90^\circ + 36^\circ = 306^\circ \\ Q = 36^\circ \end{array}$$

$$\text{Required Percent} = \frac{306 - 36}{306} \times 100$$

$$= \frac{270}{360} \times 100 = 75\%$$

$$143. (a) \begin{array}{l} \text{Total number of male students in Mathematics and Economics} = 30 + 32 = 62 \end{array}$$

$$\begin{array}{l} \text{Total number of female students in mathematics \& Economics} = 20 + 34 = 54 \end{array}$$

$$\text{Required \%} = \frac{62 - 54}{54} \times 100$$

$$= \frac{8}{54} \times 100 = \frac{400}{27}\% = 14.8\% \text{ more}$$

$$144. (a) \text{It is clear from graph.}$$

Maximum number of female students is difficulty in statistics.

145. (a) Chemistry (37), It is clear from graph.

146. (c) Statistics (1), It is clear from graph.

$$147. (c) A = \frac{20+30+20}{3} = \frac{70}{3} = 23.33$$

$$B = \frac{40+30+50}{3} = \frac{120}{3} = 40$$

$$C = \frac{20+20+40}{3} = \frac{80}{3} = 26.66$$

$$D = \frac{60+30+40}{3} = \frac{130}{3} = 43.66$$

So company D has the highest production.

148. (d) In 2010, A and D = 20 + 60 = 80

In 2012, A + B + C + D = 20 + 50 + 20 + 40 = 130

$$= \frac{80}{130} \times 100 = 61\%$$

$$149. (b) \frac{20}{60} \times 100 = 33\frac{1}{3}\%$$

$$150. (c) B = \frac{40+30+50}{3} = \frac{120}{3} = 40$$

$$C = \frac{20+40+20}{3} = \frac{80}{3}$$

$$\text{then } B : C = 40 : \frac{80}{3}$$

$$B : C = 3 : 2$$

151. (b) Maintenance cost – Raw material cost

$$D - A = 30^\circ = 720 \times \frac{30^\circ}{360^\circ} = 60 \text{ lakhs}$$

$$152. (c) 720 \times \frac{150^\circ}{360^\circ} = 300 \text{ lakhs}$$

$$153. (b) \text{ Packing cost} = \frac{100^\circ}{360^\circ} \times \left(720 \times \frac{11}{10} \right) = 220 \text{ lakh}$$

154. (d) Sri Lanka

$$155. (d) \frac{433.6+592.1+596.6}{3} = \frac{1622.6}{3} = 540.8$$

156. (d) United kingdom-Turkey

157. (c) Price of petrol in 2004 = 36.49

Price of petrol in 2014 = 73.70

Avg diff

$$= \frac{\text{difference between 2004-2014}}{\text{price of petrol in 2004}} \times 100 = \frac{37.31}{36.49} \times 100 = 102\%$$

158. (c) 2014

$$159. (a) \frac{33.65+32.85+34.04+32.76+38.51+40.01+43.47}{7}$$

$$= \frac{255.29}{7} = 36.47$$

160. (b) Import in 2011 → 250

Import in 2012 → 350

Increase → 350 – 250 = 100

$$\% \text{Increase} \rightarrow \frac{100}{250} \times 100 = 40\%$$

161. (b)

Year	Exports	Imports	Difference
2009	150	225	75
2010	250	200	50
2011	175	250	75
2012	225	350	125

In 2010 difference b/w Imports and exports is minimum

162. (d) Students studied in B and C = 15% + 30% = 45% in 2014

Students studied in B and C in 2015 = 20% + 40% = 60%

Students in 2014 → 3600

$$3600 \times 45\% = 1620$$

Students in 2015 = 4000

$$4000 \times 60\% = 2400$$

$$\text{Difference} = 2400 - 1620 = 780$$

$$\text{Then } \% = \frac{780}{2400} \times 100 = 32.5$$

163. (a) year 2008

164. (d) can't be determined

165. (d)

166. (b) From 2005 to 2006

and 2008 to 2009

167. (c) Approximate value of average

$$= \frac{5+15+68+85}{5} = \frac{173}{5} = 34.6$$

168. (b) Only in two year maximum production of y type mobile

So, in 2010 maximum percentage of y type mobile

$$= \frac{5}{20} \times 100 = 25\%$$

169. (c) year → Total Production of Mobile

2008 → 67.5 thousand

2009 → 85 thousand

2010 → 60 thousand minimum production

2011 → 67.5 thousand

2012 → 72.5 thousand

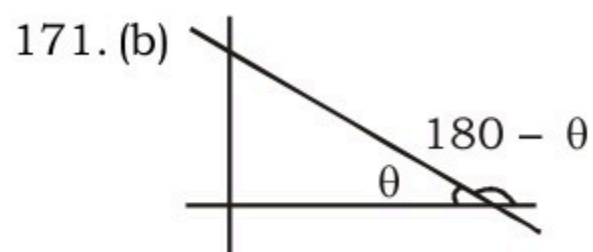
So, 2010 is answer.

170. (c) no of z type mobiles in 2009 = 30 thousand

no. of z type mobiles in 2010 = 20 thousand

reduction = 30 – 20 = 10 thousand

$$\text{reduction \%} = \frac{10}{30} \times 100 = 33.33\%$$



Let Slope is m then

$$\tan(180 - \theta) = m$$

$$-\tan \theta = m$$

Then Slope is $-ve$

172. (c) Let population of village $x = 16$ unit
 16 unit $38\% = 12160$

$$16 \text{ unit} \times \frac{38}{100} = 12160$$

$$1 \text{ unit} = 2000$$

population of village $S = 11$ unit
 so 11 unit = 22000

173. (c) Let total population of seven villages = 1000
 For Village T:-

$$\text{total population} = 21\% \text{ of } 1000 = 210$$

$$\text{below poverty line} = 46\% \text{ of } 210$$

For village Z :-

$$\text{Total population} = 11\% \text{ of } 1000 = 110$$

$$\text{below poverty line} = 42\% \text{ of } 110$$

$$\text{Required Ratio} = \frac{46}{100} \times 210 : \frac{42}{100} \times 110 = 23:11$$

174. (b) 16 unit = 32000

$$1 \text{ unit} = 2000$$

$$\text{for } y \text{ 15 unit} = 30,000$$

$$\text{below poverty line} = 52\% \text{ of } 30,000$$

$$= \frac{52}{100} \times 30,000 = 15600$$

175. (b) 15 unit = 30,000

$$1 \text{ unit} = 2,000$$

$$\text{so population in village V in 2009}$$

$$10 \text{ unit} = 20,000$$

$$\text{in 2010 population would be} = 110\% \text{ of } 20,000 = 22,000$$

$$\text{Below poverty line} = 58\% \text{ } 22000$$

$$= \frac{58}{100} \times 22000 = 12760$$

176. (b) The No. of failed student = 15

177. (d) Total No of student

$$= 15 + 20 + 40 + 50 + 10 = 135$$

178. (d) total No. of passed students = 120

$$\text{Percentage of passed students} = \frac{120}{135} \times 100$$

$$= 88 \frac{8}{9} \%$$

179. (a) No of required marks for A grade = $\frac{50 \times 90}{100} = 45$

$$\text{No of student getting A+ grade} = 10$$

180. (a) (Wheat+Sugar) : (Rice+Tea)

$$(30 + 10) : (55 - 5)$$

$$40 : 50$$

$$4 : 5$$

181. (b) Rice + Tea = $55\% + 5\% = 60\%$

$$\text{wheat} = 30\% = \frac{30}{30} \times 100 = 100\%$$

182. (d) $100 = 360^\circ$

$$1 = 3.6^\circ$$

$$30^\circ = 3.6 \times 30 = 108^\circ$$

183. (c) Rice + wheat + sugar + tea = 50000

$$55\% + 30\% + 10\% + 5\% = 500000$$

$$\begin{aligned} \text{then rice } 55\% &= \frac{500000}{100} \times 55 \\ &= 275000 \text{ kg} \end{aligned}$$

184. (d) Time spend in H + C = $(15+15)\% = 30\%$

$$\text{Time spend in P} = 20\%$$

$$\therefore 30\% = 4 \frac{1}{2} H = \frac{9}{2} H$$

$$1\% = \frac{9}{2} \times 30H$$

$$\text{So, } 20\% = \frac{9}{2} \times \frac{20}{30} H = 3 \text{ hours}$$

$$\text{So } 20\% = \frac{3}{20} \times 20 = 3H$$

185. (b) Time spend in C = 15%

$$\text{Time spend in G} = 10\%$$

$$\therefore 15\% = 3H$$

$$\therefore 10\% = \frac{3}{15} \times 10 = 2H$$

186. (a) Time spend in mathematics = 30%

$$\therefore 100\% = 10 H$$

$$\therefore 30\% = 3H$$

187. (c) extra time taken = $15\% - 10\% = 5\%$

$$\text{then difference in mathematics} = 5\%$$

$$\therefore 100\% = 20H$$

$$\therefore 5\% = 1H$$

188. (b) People in service sector more than trade

$$= 20\% - 6.70\%$$

$$= 13.3\% = \frac{13.3}{100} \times 20000 = 2660$$

189. (b) $\frac{\text{Service Sector}}{\text{Industry}} = \frac{20}{30} = 2 : 3$

$$190.(c) \text{ Angle made by service sector} = \frac{20}{100} \times 360^\circ$$

$$= \frac{360}{5} = 72^\circ$$

191.(d) Maximum people in Any profession - Minimum people involved in any profession

Agriculture = 33.30%

Trade = Minimum = 6.70%

Difference = 33.30% - 6.70% = 26.60%

100% = 20000

1% = 200

26.6% = 200 × 26.6 = 5320

192. (a) March to may

$$\begin{pmatrix} \text{March} & \text{April} & \text{May} \\ 9 & 11 & 13 \end{pmatrix}$$

→ Income

193. (b) Income difference

Feb - Jan = 4 - 7 = -3

Mar - Feb = 9 - 4 = 5

Apr - Mar = 9 - 7 = 2

May - Apr = 13 - 11 = 2

Then answer is 'March'

194. (a) Income of May = 13

Income of Feb = 4

Then $\frac{13}{4} = 3.25$ times

195. (c) The average monthly income of the firm

$$= \frac{7+4+9+11+13}{5} = \frac{44}{5} = 8.8$$

196.(c) The no. of students who have mark less than

60 = 7 + 8 + 18 = 33

197.(a) Average marks

$$= \frac{20 \times 7 + 40 \times 8 + 60 \times 18 + 80 \times 4 + 100 \times 13}{50}$$

$$= \frac{3160}{50} = 63.2$$

198. (a) Required no of student = 18 + 4 = 22

199.(c) Required percentage = $\frac{13+4}{50} \times 100\%$

= 17 × 2 = 34%

200. (b) Sum of FDI of 1992 and 1993 = 5.7 + 10.15

= 15.85

201. (d) 2nd highest FDI year is 1996. In which FDI is 24.33

202. (a) Average investment

$$= \frac{31.36+24.33+10.22+20.16+10.15+5.7}{6}$$

$$= \frac{101.92}{6} = 16.98$$

Then ratio of avg. investment to year 1997

$$\frac{31.36}{16.68} = \frac{2}{1}$$

203. (b) Absolute difference in FDI to India between 1996 and 1997 = 31.36 - 24.23 = 7.13

204.(d) Total no. of parked bicycle

95 + 75 + 85 + 65 + 75

55 + 65 + 45 + 55

35 + 45 = 695

Total calculate 695 × 1 = 695

205.(d) Percentage decrease

$$= \frac{45-25}{45} = \frac{20}{45} \times 100 = 44\frac{4}{9} = 45 \text{ (approx)}$$

206.(d) Average no. cycle

$$= \frac{\text{total parked cycle}}{12} = \frac{720}{12} = 60$$

207.(d) Average cycle per hour

= 60 = 6 times

208.(b) From the Graph:-

sum of 1982 and 1984 = 20 + 15 = 35

Which is equal to the production of 1981

209.(c) Difference of production of 1981 and 1985 = 35 - 30 = 5 × 1000 = 5000 tonnes

210.(d) % increase = $\frac{30-15}{15} \times 100 = \frac{15}{15} \times 100 = 100\%$

211.(a) From graph it is clear two consecutive years in which rate of change is minimum are 1980 and 1981

212.(b) Avg. $\frac{(8800+8600+8200+7500+6500+6000)}{6} = 7600$

213.(b) IInd highest peak = C (8600m)

214.(a) Highest : Lowest
8800 : 6000
22 : 15

215.(d) Ascending order of peak is length

8800, 8600, 8200, 7500, 6500, 6000
centre

$$\text{Avg.} = \left(\frac{82+75}{2} \right) \times 100 = \frac{157}{2} \times 100 = 7850 \text{ m}$$

216.(c) Average reserves = $\frac{2640+3720+2520+3360+3120+4320+5040+3120}{8}$

$$= \frac{27840}{8} = 3480$$

So, required ratio = 3 : 5

$$217. (d) \text{ Required \%} = \frac{4320}{3480} \times 100 = 124.137 \sim 124\%$$

$$218. (a) \text{ Reserve in } 1993 - 94 = 2520$$

$$\text{Reserve in } 1997 - 98 = 5040$$

$$\text{Increase \%} = \frac{5040 - 2520}{2520} \times 100\%$$

$$= \frac{2520}{2520} \times 100 = 100\%$$

$$219. (c) \text{ Reserve in year } 1991-92,$$

$$1992-95 \text{ and } 1993-94 = 2640 + 3720 + 2520 = 8880$$

$$\text{Reserve in year } (1995-96, 1996-97 \text{ and } 1997-98) = 3120 + 4320 + 5040 = 12480$$

$$\text{Required ratio} = 8880 : 12480 = 37 : 52$$

$$220. (c) \text{ No. of student at state university} = 14000$$

$$\text{No. of student at central university} = 12000$$

$$\text{So, more student} = 1400 - 1200 = 2000$$

$$221. (c) \text{ Total enrolments in both state university and}$$

$$\text{central university during } 1980, 1990, 2000$$

$$= (8 + 10 + 14 + 12 + 12 + 14) \text{ thousands}$$

$$= 70 \text{ thousands} = 70000$$

$$222. (d) \text{ Total enrollments in } 1980, 2000 \text{ at state}$$

$$\text{university} = 8 + 12 = 20$$

$$\text{Total enrollments in } 1980, 2000 \text{ at central}$$

$$\text{university} = 10 + 14 = 24$$

$$\text{required ratio} = 20 : 24 = 5 : 6$$

$$223. (b) \text{ Total enrollment in year } 2000 = 12000$$

$$\text{So, total revenue collection} = 12000 \times 6500$$

$$= 7,80,00,000$$

$$224. (b) \text{ The max production - the min production}$$

$$540 - 120 \Rightarrow 420$$

$$225. (c) \text{ Average}$$

$$= \frac{540 + 260 + 360 + 120 + 200 + 320}{6} = \frac{1800}{6} \Rightarrow 300$$

$$226. (c) 29:16$$

$$227. (b) \text{ Average of full week} = 300$$

$$\text{Average of monday of tuesday} = \frac{540 + 280}{2}$$

$$\Rightarrow 400$$

$$\Rightarrow 400 - 300 = 100$$

$$228. (b) \% \text{ Increase} = \frac{12-9}{9} \times 100 = 33\frac{1}{3}\%$$

$$229. (d) \text{ Total students sum} = 6 + 9 + 8 + 12 = 35$$

$$\text{Passed students} = 4 + 6 + 6 + 9 = 25$$

$$\text{ratio} = \frac{25}{35} = \frac{5}{7}$$

$$230. (a) \text{ Passed\% (2000)} = \frac{4}{6} \times 100 = 66\frac{2}{3}\%$$

$$\text{Passed\% (2001)} = \frac{6}{9} \times 100 = 66\frac{2}{3}\%$$

$$\text{Passed\% (2002)} = \frac{6}{8} \times 100 = \frac{300}{4} = 75\%$$

$$\text{Passed\% (2003)} = \frac{9}{12} \times 100 = 75\%$$

$$\text{Passed\% (2004)} = \frac{9}{11} \times 100 = \frac{900}{11}$$

Hence ans. 2000, 2001

$$231. (d) \text{ Admitted students (2002)} = 8$$

$$\text{Passed students (2003 to 2004)} = 9 + 9$$

$$\text{required ratio} = 8 : 9$$

$$232. (d) \text{ Required increament}$$

$$= \frac{36.2 - 26.6}{26.6} \times 100 = \frac{9.6}{26.6} \times 100 = 36.09\% = 36\%$$

$$233. (c) \text{ From graph it is clear that minimum charge of}$$

$$\text{rate is for world} = 16 - 14.6 = 1.4$$

$$234. (a) \text{ From graph it is clear that U.S.A had better}$$

$$\text{central on inflation.}$$

$$235. (b) \text{ Average marks obtained in two terms} = \frac{90 + 75}{2}$$

$$= \frac{165}{2} = 82.5$$

$$236. (c) \text{ From graph it is clear that maximum}$$

$$\text{difference of marks in both term is for biology}$$

$$237. (d) \text{ Percentage of marks in chemistry of both term}$$

$$= \frac{65 + 70}{2} = \frac{135}{2} = 67.5$$

$$238. (c) \text{ Average mark of biology}$$

$$= \frac{90 + 55}{2} = \frac{145}{2}$$

Average of sum of math first term & English first

$$\text{term} = \frac{100 + 70}{2} = \frac{170}{2}$$

$$\text{Required ratio} = \frac{145}{2} : \frac{170}{2} = 29 : 34$$

$$239. (c) \text{ The Percentage of money spent} = \frac{15 \times 100}{135}$$

$$\Rightarrow \frac{100}{9} = 11\frac{1}{9}$$

$$240. (b) \text{ The fraction of money spent on Refreshment}$$

$$= \frac{10}{135} = \frac{2}{27}$$

241. (c) Total expenditure of the company = Emp + Re-freshment + Transport + b/e + mis
 $= 80 + 10 + 20 + 10 + 15 \Rightarrow 135$

242. (a) Ratio of Transport : Ratio of Employee salary
 $20 : 80$
 $1 : 4$

243. (b) The no. donor having group O = $\frac{100.8^\circ}{360} \times 150$
 $= 42$

244. (a) Person having blood group A or B:-
 $= \frac{(129.6^\circ + 72^\circ)}{360} \times 150 = 84$

245. (c) % of person having blood group AB
 $= \frac{57.6^\circ}{360^\circ} \times 100 = 16\%$

246. (d) Avg. of O, B, AB blood group
 $= \frac{100.8^\circ + 129.6^\circ + 57.6^\circ}{3} = \frac{288}{3} = 96^\circ$
 Required ratio = $72^\circ : 96^\circ = 3 : 4$

247. (b) Expenditure on cloth = 825
 $\therefore 36^\circ = 825$
 $\therefore 360^\circ = 825 \times 10 = 8250$
 So, total expenditure = $360^\circ = ₹ 8250$

248. (a) Total expenditure = 360°
 saving = 54°
 Required % = $\frac{54}{360^\circ} \times 100 = 15\%$

249. (b) Required ratio

Food	:	Miscellaneous
108°	:	72°
3	:	2

250. (a) average of (clothing + rent) = $\frac{36^\circ + 90^\circ}{2} = 63^\circ$

$\therefore 360^\circ = ₹ 8250$

$\therefore 63^\circ = \frac{8250}{360} \times 63 = ₹ 1443.75$

251. (d) average of (food + clothing + misce.)
 $= \frac{108 + 36 + 72}{3} = 72^\circ$

avg of (saving + rent) = $\frac{90 + 54}{2} = 72$

Required ratio = $72^\circ : 72^\circ = 1 : 1$

252. (c) Total number of males = $3500 + 4500 + 4750 + 2250 + 3250 = 18250$

Total number of females = $3000 + 3500 + 4000 + 1500 + 3750 = 15750$

different male and female = $18250 - 15750 = 2500$

253. (c) Average number of females in all organisation
 $= \frac{15750}{5} = 3150$

Percentage of females with respect to male in D

$= \frac{3150}{2250} \times 100 = 140\%$

Female are 40% more than D.

254. (d) Female in B and C = $3500 + 4000 = 7500$

Male in D and E = $2250 + 3250 = 5500$

Required ratio = $7500 : 5500$

$= 75 : 55 = 15 : 11$

255. (a) Males in A and B = $3500 + 4500 = 8000$

Males in C, D and E = $4750 + 2250 + 3250 = 10250$

Required % = $\frac{8000}{10250} \times 100 = 78.04$

