# Data interpretation

**Direction for questions (1-5):** Study the following table and answer the questions.

Number of Candidates Appeared and Qualified in a Competitive Examination from Different States Over the Years.

| State | Year | | | | | | | | | |
|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | |
| | App. | Qual. | App. | Qual. | App. | Qual. | App. | Qual. | App. | Qual. |
| M | 5200 | 720 | 8500 | 980 | 7400 | 850 | 6800 | 775 | 9500 | 1125 |
| N | 7500 | 840 | 9200 | 1050 | 8450 | 920 | 9200 | 980 | 8800 | 1020 |
| P | 6400 | 780 | 8800 | 1020 | 7800 | 890 | 8750 | 1010 | 9750 | 1250 |
| Q | 8100 | 950 | 9500 | 1240 | 8700 | 980 | 9700 | 1200 | 8950 | 995 |
| R | 7800 | 870 | 7600 | 940 | 9800 | 1350 | 7600 | 945 | 7990 | 885 |

Q1. Total number of candidates qualified from all the states together in 1997 is approximately what percentage of the total number of candidates qualified from all the states together in 1998?

(a) 72%          (b) 77%          (c) 80%          (d)83%

Q2. What is the average candidates who appeared from State Q during the given years?

(a) 8700          (b) 8760          (c) 8990          (d) 8920

Q3. In which of the given years the number of candidates appeared from State P has maximum percentage of qualified candidates?

(a) 1997          (b) 1998          (c) 1999          (d) 2001

Q4. What is the percentage of candidates qualified from State N for all the years together, over the candidates appeared from State N during all the years together?
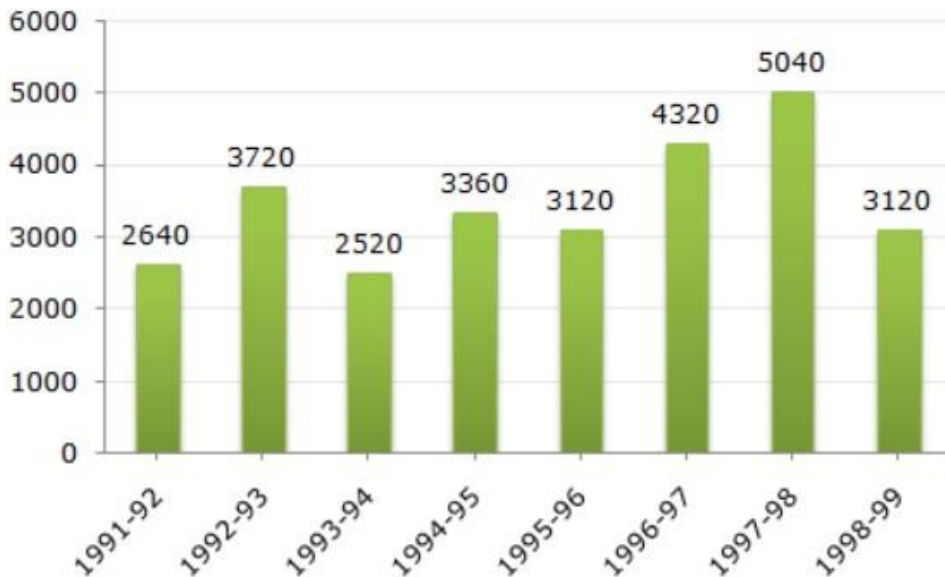
(a) 12.36%          (b) 12.16%          (c) 11.47%          (d) 11.15%

Q5. The percentage of total number of qualified candidates to the total number of appeared candidates among all the five states in 1999 is?

(a) 11.49%          (b) 11.84%          (c) 12.21%          (d) 12.57%

**Direction for questions (6-10):** The bar graph given below shows the foreign exchange reserves of a country (in million US $) from 1991 - 1992 to 1998 - 1999.

Foreign Exchange Reserves Of a Country. (in million US $)



Q6. The ratio of the 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

Q7. The foreign exchange reserves in 1997-98 was how many times that in 1994-95?

(a) 0.7          (b) 1.2          (c) 1.4          (d) 1.5

Q8. For which year, the percent increase of foreign exchange reserves over the previous year, is the highest?

(a) 1992-93     (b) 1993-94     (c) 1994-95     (d) 1996-97

Q9. The foreign exchange reserves in 1996-97 were approximately what percent of the average foreign exchange reserves over the period under review?
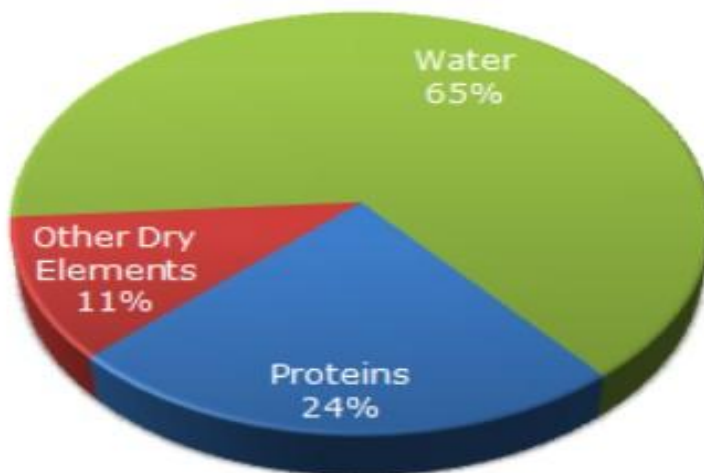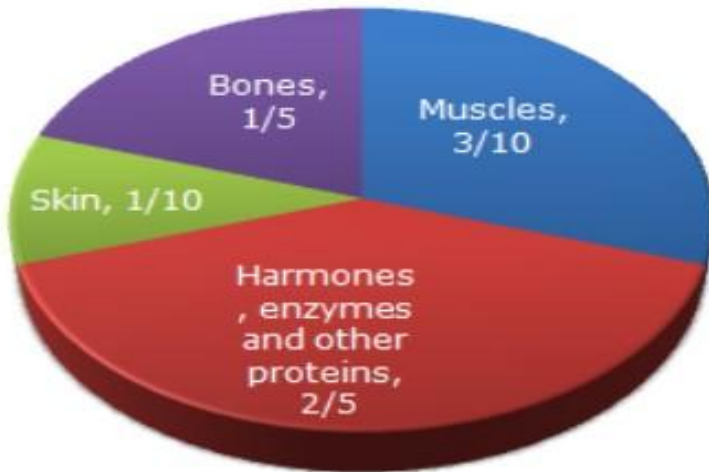
(a) 95%          (b) 110%          (c) 115%          (d) 125%

Q10. What was the percentage increase in the foreign exchange reserves in 1997-98 over 1993-94?

(a) 100          (b) 150          (c) 200          (d) 620

**Direction for questions (11-13):** The following pie chart give the information about the distribution of weight in the human body according to different kinds of components. Study the pie charts and answer the question.

## Distribution of Weight in Human Body



Q11. What percentage of proteins of the human body is equivalent to the weight of its skin?

(a) 41.66 %      (b) 43.33 %      (c) 44.44 %      (d) Cannot be determined

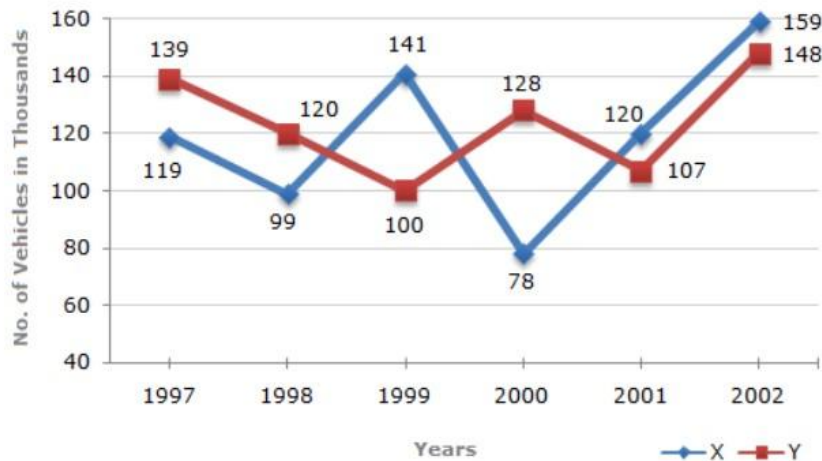Q12. How much of the human body is neither made of bones or skin ?

(a) 40 %      (b) 50 %      (c) 60 %      (d) 70 %

Q13. What is the ratio of the distribution of proteins in the muscles to that of the distribution of proteins in the bones ?

(a) 2:1      (b) 2:3      (c) 3:2      (d) Cannot be determined

**Direction for questions (14-18):** Study the following line graph and answer the questions based on it.

Number of Vehicles Manufactured by Two companies ove the Years (Number in Thousands)



Q14. What is the difference between the number of vehicles manufactured by Company Y in 2000 and 2001?

(a) 50000        (b) 42000        (c) 33000        (d) 21000

Q15. What is the difference between the total productions of the two Companies in the given years ?

(a) 19000        (b) 22000        (c) 26000        (d) 28000

Q16. What is the average numbers of vehicles manufactured by Company X over the given period ? (rounded off to nearest integer)

(a) 119333       (b) 113666       (c) 112778       (d) 111223

Q17. In which of the following years, the difference between the productions of Companies X and Y was the maximum among the given years ?

(a) 1997         (b) 1998         (c) 1999         (d) 2000

Q18. The production of Company Y in 2000 was approximately what percent of the production of Company X in the same year ?

(a) 173          (b) 164          (c) 132          (d) 97

**Direction for questions (19-23):** The following table shows the number of new employees added to different categories of employees in a company and also the number of employees from these categories who left the company every year since the foundation of the Company in 1995.

| Year | Managers | | Technicians | | Operators | | Accountants | | Peons | |
|------|------|------|------|------|------|------|------|------|------|------|
| | New | Left | New | Left | New | Left | New | Left | New | Left |
| 1995 | 760 | - | 1200 | - | 880 | - | 1160 | - | 820 | - |
| 1996 | 280 | 120 | 272 | 120 | 256 | 104 | 200 | 100 | 184 | 96 |
| 1997 | 179 | 92 | 240 | 128 | 240 | 120 | 224 | 104 | 152 | 88 |
| 1998 | 148 | 88 | 236 | 96 | 208 | 100 | 248 | 96 | 196 | 80 |
| 1999 | 160 | 72 | 256 | 100 | 192 | 112 | 272 | 88 | 224 | 120 |
| 2000 | 193 | 96 | 288 | 112 | 248 | 144 | 260 | 92 | 200 | 104 |

Q19. What is the difference between the total number of Technicians added to the Company and the total number of Accountants added to the Company during the years 1996 to 2000?

(a) 128            (b) 112            (c) 96            (d) 88

Q20. What was the total number of Peons working in the Company in the year 1999?

(a) 1312            (b) 1192            (c) 1088            (d) 968

Q21. For which of the following categories the percentage increase in the number of employees working in the Company from 1995 to 2000 was the maximum?

(a) Managers        (b) Technicians        (c) Operators        (d) Accountants

Q22. What is the pooled average of the total number of employees of all categories in the year 1997?

(a) 1325            (b) 1195            (c) 1265            (d) 1235

Q23. During the period between 1995 and 2000, the total number of Operators who left the Company is what percent of total number of Operators who joined the Company?

(a) 19%            (b) 21%            (c) 27%            (d) 29%

**Direction for questions (24-27):** The following table gives the percentage distribution of population of five states, P, Q, R, S and T on the basis of poverty line and also on the basis of sex.

| State | Percentage of Population below the Poverty Line | Proportion of Males and Females | |
|---|---|---|---|
| | | Below Poverty Line | Above Poverty Line |
| | | M : F | M : F |
| P | 35 | 5 : 6 | 6 : 7 |
| Q | 25 | 3 : 5 | 4 : 5 |
| R | 24 | 1 : 2 | 2 : 3 |
| S | 19 | 3 : 2 | 4 : 3 |
| T | 15 | 5 : 3 | 3 : 2 |

Q24. If the male population above poverty line for State R is 1.9 million, then the total population of State R is?

(a) 4.5 million        (b) 4.85 million        (c) 5.35 million        (d) 6.25 million

Q25. What will be the number of females above the poverty line in the State S if it is known that the population of State S is 7 million?

(a) 3 million        (b) 2.43 million        (c) 1.33 million        (d) 5.7 million

Q26. What will be the male population above poverty line for State P if the female population below poverty line for State P is 2.1 million?
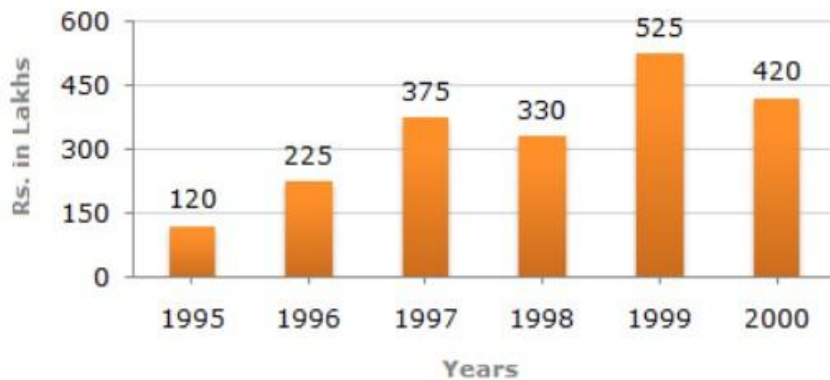
(a) 2.1 million        (b) 2.3 million        (c) 2.7 million        (d) 3.3 million

Q27. If the population of males below poverty line for State Q is 2.4 million and that for State T is 6 million, then the total populations of States Q and T are in the ratio?
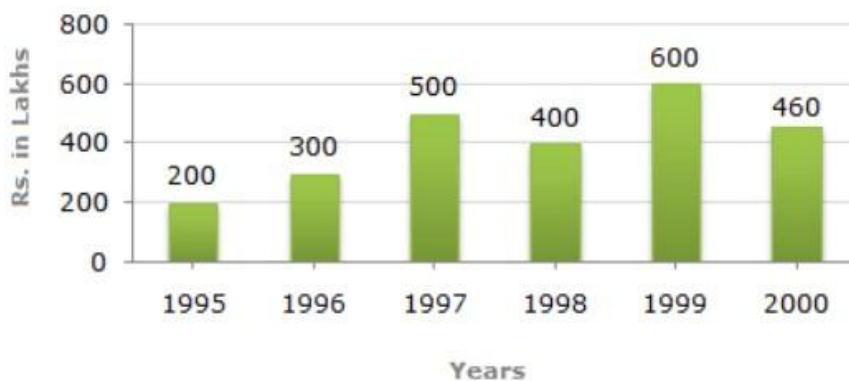
(a) 1:3        (b) 2:5        (c) 3:7        (d) 4:9

**Direction for questions (28-32):** Out of the two bar graphs provided below, one shows the amounts (in Lakh Rs.) invested by a Company in purchasing raw materials over the years and the other shows the values (in Lakh Rs.) of finished goods sold by the Company over the years.



Amount invested in Raw Materials (Rs. in Lakhs)



Value of Sales of Finished Goods (Rs. in Lakhs)

Q28. The maximum difference between the amount invested in Raw materials and value of sales of finished goods was during the year?

(a) 1995      (b) 1996      (c) 1997      (d) 1998

Q29. The value of sales of finished goods in 1999 was approximately what percent of the sum of amount invested in Raw materials in the years 1997, 1998 and 1999?

(a) 33%      (b) 37%      (c) 45%      (d) 49%

Q30. 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?

(b) Rs. 62.5 lakhs      (b) Rs. 68.5 lakhs      (c) Rs. 71.5 lakhs      (d) Rs. 77.5 lakhs

Q31. In which year, the percentage change (compared to the previous year) in the investment on Raw materials is same as that in the value of sales of finished goods?
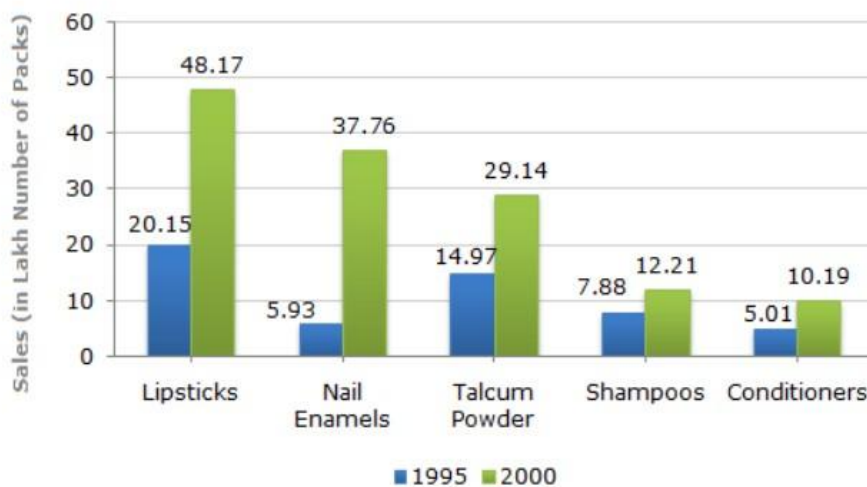
(a) 1996 (b) 1997 (c) 1998 (d) 1999

Q32. 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

**Direction for questions (33-37):** A cosmetic company provides five different products. The sales of these five products (in lakh number of packs) during 1995 and 2000 are shown in the following bar graph.



Sales (in lakh number of packs) of five different products of Cosmetic Company during 1995 and 2000

Q33. The sales of lipsticks in 2000 was by what percent more than the sales of nail enamels in 2000? (rounded off to nearest integer)

(a) 33% (b) 31% (c) 28% (d) 22%

Q34. During the period 1995-2000, the minimum rate of increase in sales is in the case of?

(a) Shampoos (b) Nail enamels (c) Talcum powders (d) Lipsticks

Q35. What is the approximate ratio of the sales of nail enamels in 2000 to the sales of Talcum powders in 1995?

(a) 7:2 (b) 5:2 (c) 4:3 (d) 2:1

Q36. The sales have increase by nearly 55% from 1995 to 2000 in the case of?

(a) Lipsticks (b) Nail enamels (c) Talcum powders (d) Shampoos

Q37. The sales of conditioners in 1995 was by what percent less than the sales of shampoos in 1995? (rounded off to nearest integer)

(a) 57% (b) 36% (c) 29% (d) 25%

**Direction for questions (38-42):** 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 answers the question that follow.

Sources of funds to be arranged by NHAI for Phase II projects (in crores Rs.)



Q38. Near about 20% of the funds are to be arranged through:

(a) SPVS       (b) External Assistance       (c) Annuity       (d) Market Borrowing

Q39. If NHAI could receive a total of Rs. 9695 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%

Q40. If the toll is to be collected through an 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 Rs. 4910 crores?

(a) Rs. 6213 crores       (b) Rs. 5827 crores       (c) Rs. 5401 crores       (d) Rs. 5316 crores

Q41. The central angle corresponding to Market Borrowing is
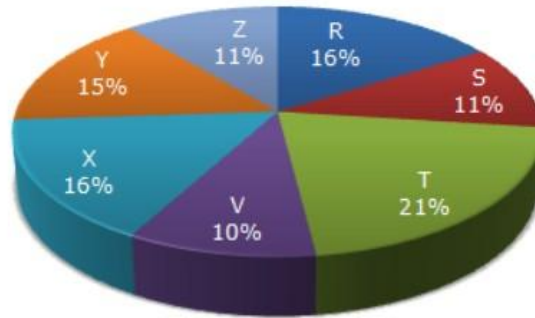
(a) 52°       (b) 137.8°       (c) 187.2°       (d) 192.4°

Q42. The approximate ratio of the funds to be arranged through Toll and that through Market Borrowing is

(a) 2 : 9       (b) 1 : 6       (c) 3 : 11       (d) 2 : 5

**Direction for questions (43-46):** Study the following pie-chart and the table and answer the questions based on them.

Proportion of Population of Seven Villages in 1997



| Village | % Population Below Poverty Line |
|---------|--------------------------------|
| X | 38 |
| Y | 52 |
| Z | 42 |
| R | 51 |
| S | 49 |
| T | 46 |
| V | 58 |

Q43. If the population of village R in 1997 is 32000, then what will be the population of village Y below poverty line in that year?

(a) 14100          (b) 15600          (c) 16500          (d) 17000

Q44. The ratio of population of village T below poverty line to that of village Z below poverty line in 1997 is:

(a) 11 : 23          (b) 13 : 11          (c) 23 : 11          (d) 11 : 13

Q45. Find the population of village S if the population of village X below poverty line in 1997 is 12160.
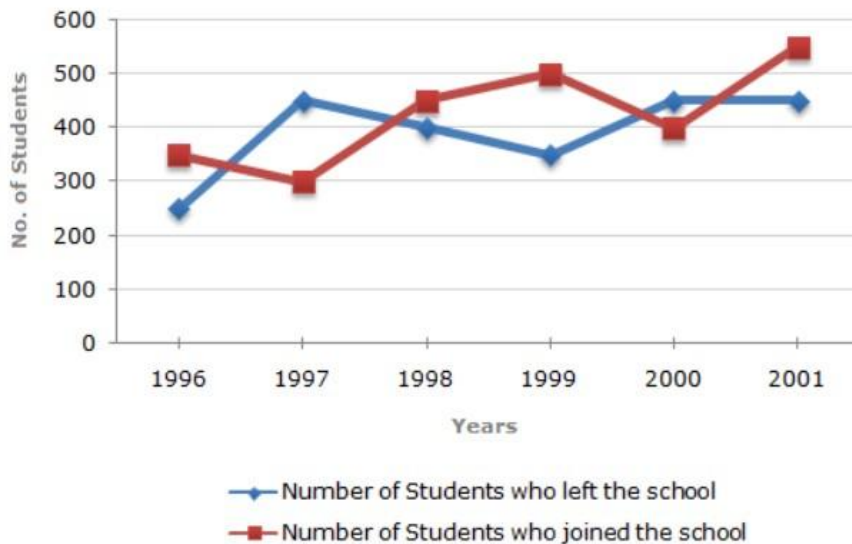
(a) 18500          (b) 20500          (c) 22000          (d) 26000

Q46. If in 1998, the population of villages Y and V increase by 10% each and the percentage of population below poverty line remains unchanged for all the villages, then find the population of village V below poverty line in 1998, given that the population of village Y in 1997 was 30000.

(a) 11250          (b) 12760          (c) 13140          (d) 13780

**Direction for questions (47-51):** Study the following line graph which gives the number of students who joined and left the school in the beginning of year for six years, from 1996 to 2001.



Initial Strength of school in 1995 = 3000.

— Number of Students who left the school
— Number of Students who joined the school

Q47. The number of students studying in the school during 1999 was?

(a) 2950      (b) 3000      (c) 3100      (d) 3150

Q48. For which year, the percentage rise/fall in the number of students who left the school compared to the previous year is maximum?

(a) 1997      (b) 1998      (c) 1999      (d) 2000

Q49. The strength of school incresed/decreased from 1997 to 1998 by approximately what percent?

(a) 1.2%      (b) 1.7%      (c) 2.1%      (d) 2.4%

Q50. The number of students studying in the school in 1998 was what percent of the number of students studying in the school in 2001?
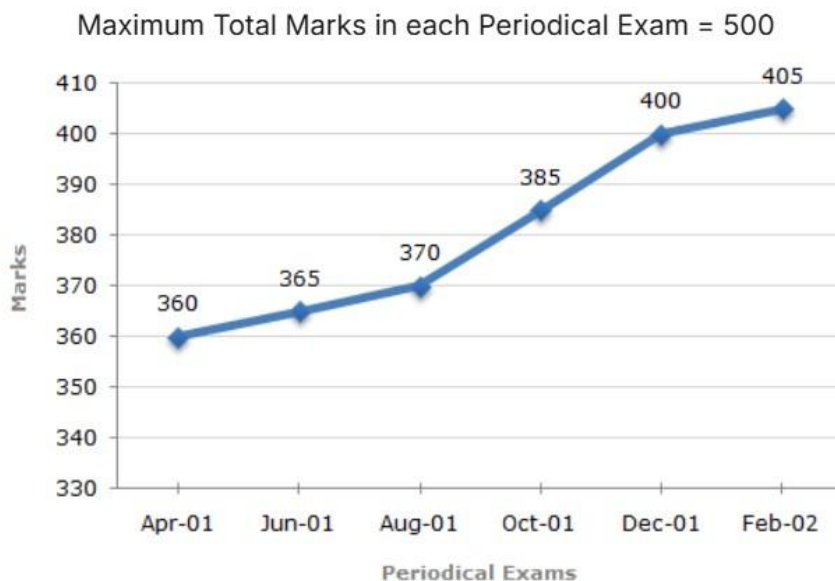
(a) 92.13%      (b) 93.75%      (c) 96.88%      (d) 97.25%

Q51. The ratio of the least number of students who joined the school to the maximum number of students who left the school in any of the years during the given period is?

(a) 7:9      (b) 4:5      (c) 3:4      (d) 2:3

**Direction for questions (52-56):** In a school the periodical examination are held every second month. In a session during April 2001 - March 2002, a student of Class IX appeared for each of the periodical exams. The aggregate marks obtained by him in each perodical exam are represented in the line-graph given below.

Marks Obtained by student in Six Periodical Held in Every Two Months During the Year in the Session 2001 - 2002.

Maximum Total Marks in each Periodical Exam = 500



Q52. In which periodical exams did the student obtain the highest percentage increase in marks over the previous periodical exams ?

(a) June, 01          (b) August, 01          (c) Oct, 01          (d) Dec, 01

Q53. The total number of marks obtained in Feb. 02 is what percent of the total marks obtained in April 01?

(a) 110%          (b) 112.5%          (c) 115%          (d) 116.5%

Q54. What is the percentage of marks obtained by the student in the periodical exams of August, 01 and Oct, 01 taken together ?

(a) 73.25%          (b) 75.5%          (c) 77%          (d) 78.75%

Q55. What are the average marks obtained by the student in all the periodical exams during the last session?

(a) 373          (b) 379          (c) 381          (d) 385

Q56. In which periodical exams there is a fall in percentage of marks as compared to the previous periodical exams ?

(a) None          (b) June, 01          (c) Oct, 01          (d) Feb, 02

**Direction for questions (57-60):** Study the following table and answer the questions.

Classification of 100 Students Based on the Marks Obtained by them in Physics and Chemistry in an Examination.

| Subject | Marks out of 50 | | | | |
|---|---|---|---|---|---|
| | 40 and above | 30 and above | 20 and above | 10 and above | 0 and above |
| Physics | 9 | 32 | 80 | 92 | 100 |
| Chemistry | 4 | 21 | 66 | 81 | 100 |
| Average (Aggregate) | 7 | 27 | 73 | 87 | 100 |

Q57. What is the different between the number of students passed with 30 as cut-off marks in Chemistry and those passed with 30 as cut-off marks in aggregate?

(a) 3　　　　　(b) 4　　　　　(c) 5　　　　　(d) 6

Q58. If at least 60% marks in Physics are required for pursuing higher studies in Physics, how many students will be eligible to pursue higher studies in Physics?

(a) 27　　　　　(b) 32　　　　　(c) 34　　　　　(d) 41

Q59. The percentage of number of students getting at least 60% marks in Chemistry over those getting at least 40% marks in aggregate, is approximately?

(a) 21%　　　　　(b) 27%　　　　　(c) 29%　　　　　(d) 31%

Q60. The number of students scoring less than 40% marks in aggregate is?

(a) 13　　　　　(b) 19　　　　　(c) 20　　　　　(d) 27

**Answer key**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | C | 11 | A | 21 | A | 31 | B | 41 | C | 51 | D |
| 2 | C | 12 | D | 22 | B | 32 | A | 42 | B | 52 | C |
| 3 | D | 13 | D | 23 | D | 33 | C | 33 | B | 53 | B |
| 4 | D | 14 | D | 24 | D | 34 | A | 44 | C | 54 | B |
| 5 | B | 15 | C | 25 | B | 35 | B | 45 | C | 55 | C |
| 6 | C | 16 | A | 26 | D | 36 | D | 46 | B | 56 | A |
| 7 | D | 17 | D | 27 | B | 37 | B | 47 | D | 57 | D |
| 8 | A | 18 | B | 28 | C | 38 | B | 48 | A | 58 | B |
| 9 | D | 19 | D | 29 | D | 39 | C | 49 | B | 59 | C |
| 10 | A | 20 | B | 30 | D | 40 | C | 50 | B | 60 | D |